

# THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LXXII. NEW YORK, SATURDAY, MARCH 26, 1898.

No. 13.

## ORIGINAL ARTICLES.

### **MIGRAINOUS VERTIGO AND THE SUBSTITUTION OF VERTIGINOUS SEIZURES FOR ATTACKS OF SICK HEADACHE.<sup>1</sup>**

BY CHARLES L. DANA, M.D.,

OF NEW YORK;

VISITING PHYSICIAN TO BELLEVUE HOSPITAL, ETC.

To better elucidate the subject it may be expedient to ask attention for a moment to a matter of physiology. It will be remembered that the eighth cranial nerve is usually described as the acoustic, though this conveys but half the truth, as it is the nerve of space as well as of hearing. In reality then, the eighth pair of cranial nerves constitute four nerves, two for the sense of hearing and two for that of space. The latter are distributed to the semicircular canals and have their origin in the cerebellum. When they are diseased the patient loses his spatial relations; his bodily equilibrium is disturbed; he feels as though he were being whirled about; when walking he tumbles from side to side, or is forced violently backward or forward. The feeling and power of adjustment to the external world are gone.

The symptoms above enumerated are often associated with disturbances of the nerve of hearing, so that the patient is found to be more or less deaf; he hears buzzing sounds in the head, or, by diffusion of the irritation to the medulla, suffers from nausea, vomiting, and a condition of speechlessness or even syncope may supervene. The purely space-sense symptoms, without any auditory complications, are observed in seasickness.

When the peripheral ends of the space-sense and acoustic nerves are the seat of a progressive organic process, as in disease of the labyrinth, there occurs the mixture of vertiginous and aural symptoms clinically known as Ménière's disease. Often there are slight changes in the middle or external ear, which cause somewhat similar symptoms. This condition is called functional or irritative labyrinthine vertigo. In such a case the middle-ear disease directly leads to a neurosis of the eighth nerve; or this nerve, by reason of its irritated condition, becomes the starting-point in the production of a general neurosis, the special symptoms of which originate in, and are dictated by, the local affection.

As illustrative of the foregoing I wish to submit the history of a case. It is purely a clinical report, having no terminal adornment in the shape of an autopsy—nor, indeed, is the dead-house needed to unravel its mysteries. Sometimes cases occur in which the study of the symptoms throws a light upon the cause and pathology of disease which is much more luminous and satisfactory than that obtained from the most ample enlargements of the microscope or most virulent cultures of bacilli. Cases may be reported, also, because they are rare or unique, or have about them a certain piquancy of incident or sensuous fulness of detail which makes them beautiful to medical minds, well attuned to the harmonies of vagrant tissue life. However, my case, I think, furnishes more than a purely interesting recital. It shows the evolution of one affection into another, and proves a kinship between two diseases, which taken together might seem entirely independent one of the other.

We all know that migraine in its various forms is one of the most common of neuroses—indeed, one of the most familiar diseases to the practitioner of every branch of our art. Beginning, usually, in the early part of the second decade of life, it increases in the activity and severity of its manifestations for a number of years, and then is gradually dissipated by the maturing of the organism, leaving the patient, generally, at middle life. In a good many cases, however, this nervous instability, instead of disappearing, changes its manifestation from the sensory centers, in which it first started, and shows itself in another form; it may be, in some neuralgia or recurrent paralysis, or in some convulsive affection. In the following case it will be seen that the migrainous diathesis took a peculiar and unusual turn:

**CASE I.**—Mr. A. P., aged twenty-four years, a native of the United States, draughtsman by profession, was referred to me by Dr. D. B. St. John Roosa, during June, 1894. His father had been subject to migraine. His mother was healthy, and there were no severe neuroses or psychoses, no consumption or inebriety in the family. The patient had been well as a boy, except from an attack of measles when he was eleven years old, and but for the fact that he had had from his sixth year attacks of ordinary sick-headache, which recurred with considerable frequency up to his twentieth year, that is, four years before I saw him. From early childhood he had been very sensitive to the effects of swinging, and was easily

<sup>1</sup> Read at a meeting of the Northwestern Medical and Surgical Society of New York, February 16, 1898.

made giddy. On the other hand, he was not subject to seasickness, he was not affected by climbing to great heights, or by being in positions requiring skill and presence of mind in the adjustment of equilibrium.

His attacks of migraine came on with nausea and vomiting and at times with a slight temporary deafness and ringing in the ears. When he was twenty years old the migrainous seizures began to change their character. They began to come upon him during the day, and were first manifested by sensations of nausea, with pain in the head, similar to his ordinary sick-headaches. These symptoms were soon followed by an intense vertigo, so severe that he would be obliged to lie down. After an hour or two he would become drowsy and go off to sleep, sleeping profoundly, like a person who had had an epileptic attack. He never, however, at any time lost consciousness or had any convulsive movements. For four years he suffered once or twice a month from attacks of this nature. During this period he had at times some tinnitus and a little deafness, especially in the left ear, for which he consulted a local ear specialist, who treated him in the usual way for middle-ear catarrh. The ears were syringed, Politized, the throat treated, and counter-irritation was applied back of the ear. This did him no good whatever, and as the attacks continued, he finally consulted Dr. Roosa, who, after examination, decided that there were no indications for local treatment, and referred him to me. Dr. Roosa wrote: "He has some chronic catarrh of the middle ears, as it seems to me, but in connection with this he has seizures which do not appear to me to be aural."

When first seen by me, during June, 1894, the patient presented the appearance of a healthy young man, of good color, with no objective evidence of nervous or other disease. His heart, lungs, abdominal viscera, and kidneys were all normal. His eyes also, which had been examined by Dr. Roosa, were also found to be normal. He had none of the stigmata of a neurotic degenerate. Examination of his hearing showed at this time a very considerable degree of deafness in the left ear, especially by bone conduction, and a less degree to aerial conduction. The right ear was normal. His description of his symptoms was unusually clear and explicit.

He stated that he was then suffering from the seizures at the rate of five or six a month. They would occasionally come on with no premonitory symptoms of any kind, but usually he had some headache and nausea. While standing or sitting he would suddenly feel as if he were being toppled over backward, and he had to cling to some object near by to support himself. He felt at the same time an intense desire to go to stool, a variety of aura, which is sometimes experienced in epilepsy. If he was able to go to the closet he had two or three watery evacuations. As soon as possible, in any event, he would lie down, and in a little while would pass into a condition in which he could neither speak nor cry out. As soon as he lay down the sense of rotation which he felt while standing changed its character.

Instead of feeling as though he were being thrown back and revolved vertically, it seemed as if objects were whirled around him, sometimes from left to right, and in other attacks, from right to left. This whirling of the objects was not continuous but of a pulsating character, and at first these pulsating objects going past him, went slowly, then more rapidly, until finally, on account of their rapidity, the pulsations could hardly be distinguished at all. After a time they slowed down again. If he closed his eyes while lying down, this objective whirl disappeared, and in place of it, he felt as though he himself were being whirled vertically backward on a horizontal axis, just as he did when standing erect. He lay there, therefore, between the devil of an objective and the deep sea of a subjective vertigo; for while standing, or while keeping the eyes closed in the lying posture, he felt himself in a terrific cart-wheel progression, but while lying down, with open eyes, the world dashed past him like an express train.

The nausea and vomiting from which he sometimes suffered, disappeared after he lay down and he had no headache after the attack set in and usually none at any time. After a period of fifteen minutes to half an hour the vertigo would lessen, and he would go off into a profound sleep. He woke in a few hours, with the symptoms nearly or quite gone. The attacks would usually come on during the daytime, and under the most varied conditions; for instance, they would sometimes occur while he was sitting quietly at his work, and sometimes while engaged in active exercise, such as playing tennis. The attacks occurred also in different degrees of severity, and this was especially the case after treatment at my hands. In the light seizures, he simply had nausea followed by moderate vertigo, and he was sometimes even able to go on with his work until, in the course of half an hour or an hour, he would feel all right again. He occasionally had two or three mild attacks in one day, but never more than one severe one. He was always better in summer, but the conditions were not particularly improved by any change in his diet or mode of living, except that, when he got very tired or lost sleep, he would be more likely to have them.

My diagnosis, at the time, was that he was suffering from a migrainous neurosis of the eighth nerve, and that it was perhaps allied to, or indicative of, a developing epilepsy, and it was on this basis that treatment was begun. During the succeeding years he has been under my care at more or less regular intervals, and the attacks have gradually diminished. Between 1890 and 1894 he had over twenty attacks; during 1894 only fifteen, and none during 1895; during 1896 he had eight, and the attacks, though lighter, would sometimes occur suddenly without any premonitions. During the past year, 1897, he had but two, and his general condition has been very good.

The patient presented himself to me again during January, 1898. I had not, at that time, seen him for nearly a year, and during that interval he had been practically well, having had only two mild attacks during the summer. He complained of suffering at times from a loud buzzing in the right

ear, and he stated that any loud noise would make him stagger or sway toward the right side, but only when the ear was buzzing, this tinnitus not being constant. The examination in January last, nearly four years from his first visit, showed that he heard the voice normally with each ear. The watch was heard three inches from the right ear, and one inch from the left. A tuning-fork on the mastoid was heard imperfectly, but more so in the left ear, and was not heard as a musical note, but as a buzzing, both by bone and by aerial conduction. He could not hear a loud tuning-fork on the forehead at all; on the whole, bone conduction was much more imperfect than aerial. This condition of bone-deafness, however, he stated only existed when the buzzing was present. At other times he heard perfectly well. He was having no attacks of vertigo, headache, or nausea.

I sent him again to Dr. Roosa, who examined him and wrote me that "the voice and tuning-fork tests show that the lesion, of whatever nature, is in the labyrinth or the trunk of the nerve. His hearing is better than when I saw him first, in 1894, but the left ear is the one which exhibits an increase of hearing. He requires no local aural treatment."

We have, therefore, the case of a man who, during fourteen years, had typical attacks of migraine, and had also a migrainous hereditary history. At the age of twenty the typical migrainous attacks became modified, and instead of having the headache he had objective and subjective vertigo associated with forced movements, often preceded by an aura of desire to go to stool and followed by a lethargic sleep. As the condition progressed the nausea and vomiting also ceased, and he had for a time only attacks of severe vertigo with forced movements, and a subsequent tendency to sleep. This condition was associated with some bone-deafness and a very little local disease of the left ear. While he probably had at some time a slight degree of chronic middle-ear catarrh, this has been very insignificant, and any organic disease of the middle ear can be almost excluded from the fact that his hearing, when he feels well, as he does most of the time, is perfect in both ears to both bone and aerial conduction.

The case seems to me to show that the migrainous tendency, which is so often manifested in various forms, located itself upon the eighth nerve and produced disturbances of its function.

In my personal experience I have had other cases which suggest this same transformation of pathologic energy.

CASE II.—I was called to see a lady, sixty-four years of age, who all her early life had suffered from attacks of migraine, and also from pains along the spine and in the back of the neck, which we associate with the name "spinal irritation." She still had occasional (not very severe)

attacks of migraine and at times severe pains in the back of the neck and along the spine. When I saw her, however, she was suffering from an attack of most intense vertigo, with extreme nausea and sense of weakness, lasting in all eight to ten hours. The symptoms were, as she described them, almost precisely like those which she had experienced during an attack of seasickness. In this case there were no objective disturbances of the eighth nerve, her hearing being normal, and, furthermore, there was no tinnitus or evidences of middle-ear catarrh. The attack could not be attributed to any disturbance of digestion or abnormal condition of the eyes, and, in fact, she was apparently physically sound. These attacks she had five or six times during the course of two years, and they were brought on by overwork and fatigue, just as occurs with migrainous attacks. At that time I made the diagnosis of a neurosis affecting the eighth nerve and similar in character to the crises which affect the spinal and cranial nerves in spinal irritation. I believe now that it was a migrainous neurosis of the eighth nerve.

Other cases of this kind, though less marked, have occurred in my experience, and doubtless have been observed by others.

The interesting and practical points connected with such cases, of course, are those of therapeutics. In the case which I have related at so much length the treatment consisted largely in the use of hydrobromic acid and the bromids, careful attention to condition of the stomach and bowels, regular life and abundance of sleep, so necessary to young neurotics, and avoidance of work which would lead to excessive fatigue. The salicylate of soda was also occasionally given, and at times cannabis indica. This line of therapy is much the same as we pursue in the treatment of migraine itself, and is usually helpful or curative with these cases when they are seen early and proper conditions of life can be brought about.

For a good many years the association of migraine with eye trouble has been very strictly insisted upon, and I always make it a point to have the eyes carefully examined and errors of refraction corrected. I hear from my ophthalmologic friends of many cases in which migraine has been cured by treatment of the eyes, but in my personal experience I have never known of a single case of this kind. I have known migrainous attacks to be lessened in frequency, and the conditions generally ameliorated, but for some reason the eye-treatment of migraine has been of little assistance in the cases which have come under my observation. I should, of course, add that I do not often see migraine in its early and easy stages, whereas, no doubt, the oculist meets many such, owing to the prevalent view that chronic headaches are so often associated with disorder of the eyes.

The conclusion of the whole matter is that periodic vertiginous seizures, not due to organic ear disease, occurring in young or even in old persons, if there is a migrainous history, are really only forms of migraine. Local treatment accomplishes nothing, and therapy must be applied on the general principles directed to the care of the constitutional neurosis.

#### NOTES ON THE WIDAL SERUM-REACTION AND ON THE METHOD OF HISS.<sup>1</sup>

By JEROME B. THOMAS, JR., M.D.,  
OF BROOKLYN, N.Y.

ABOUT one year ago I had the pleasure of presenting to this Society a paper which briefly described the history and the principles of the Widal serum-reaction and contained a report of fifty-seven cases in which I employed the method at the Hoagland Laboratory. The specimens examined were all of dried blood. At that time the necessity of using cultures of moderate susceptibility and serum in high dilution was not generally appreciated, and in consequence the method presented many sources of error which more careful methods have since eliminated. In a circular published early last year Wyatt Johnston emphasized the importance of diluting the dried blood with water till the solution became a light pink, and one of the conclusions deduced from a study of my cases was that high dilution of the suspected blood was necessary to exclude the rare cases in which normal blood or blood from patients suffering from disease other than typhoid gives the serum reaction. This reaction, as you will perhaps remember, consists in the paralysis and agglutination of typhoid bacilli when mixed with the blood of a patient having typhoid fever or of an animal immunized against typhoid.

During the past year a vast amount of careful work has been done on this subject and literally thousands of cases have been reported, with the general result that the procedure has been purged of most of its imperfections, and is held by those who are best acquainted with it to be of the very highest value as an aid to the diagnosis of typhoid fever; in fact, the presence of the reaction falls very little short of being pathognomonic of the disease.

To exclude all possibility of error the serum to be tested should be diluted fifty times with water, in regard to which point Professor Welch says: "Hitherto it has not been shown that the reaction ever occurs with non-typhoid serum in dilutions exceeding 1 to 50." He also requires that a reaction consist of both agglutination and paralysis, and not one of these phenomena alone. This excludes many

so-called positive reactions reported from time to time. Some cases have been recorded in which the diagnosis of typhoid was made on the basis of a serum-reaction, and the authors, judging from later developments, considered them free from typhoid infection. Professor Welch in his paper before the American Medical Association last June mentioned two or three cases in this connection which are extremely suggestive, and prove that the presence of the reaction may reveal a typhoid infection which clinical symptoms and the autopsy-knife fail to demonstrate.

A patient with obscure symptoms, the blood giving a positive reaction, died at Johns Hopkins Hospital, and the autopsy showed no intestinal lesions. The patient did not present a history of having previously had typhoid fever. Dr. Flexner isolated typhoid bacilli in large numbers from the gall-bladder of this patient.

Pick has reported a case with marked positive serum-reaction in which no typhoid intestinal lesions and no enlargement of the spleen were found at the autopsy, though bacteriologic examination demonstrated the presence of typhoid bacilli.

Guinon and Meunier have reported an interesting and suggestive case in which, during life, there had been symptoms of typhoid fever and acute miliary tuberculosis combined. The serum-reaction was positive. At the autopsy the lesions appeared to be simply those of miliary tuberculosis. There were also small intestinal ulcers typically tuberculous in appearance. Typhoid bacilli, however, were cultivated from the spleen and other organs. "As the symptoms of typhoid indicated that this disease was disappearing, the case, if examined somewhat later, might readily have been placed to the discredit of the positive value of the serum-test.

Such cases as these very strongly point to the probability that the typhoid bacillus sometimes develops a set of symptoms resembling but slightly those commonly attributed to it, and further they suggest that the few cases in which the serum-test has been discredited as disagreeing with the clinical phenomena may have been more correctly interpreted by the bacteriologic phenomena. In illustration of this point, Dr. N. E. Brill of Mt. Sinai Hospital has quite recently published a report of "seventeen cases of a disease clinically resembling typhoid fever," but failing to give the Widal reaction. These patients had many symptoms resembling typhoid, and yet the disease was mild, all cases recovering with no sequelæ, and in none was there intestinal hemorrhage. The bowels were, as a rule, constipated, and in nearly all the cases the fever suddenly fell to normal on about the tenth or

<sup>1</sup> Read at a meeting of the Kings County Medical Association, February 8, 1898.

twelfth day, and remained there, the patient at once recovering from all symptoms except weakness. Of the undoubted typhoid cases treated during the year in the same hospital (80 in all), 78 gave a positive serum-reaction, or 97¾ per cent. The blood of 212 non-typhoid patients was examined, of which 211 gave no reaction, and the one case which gave a reaction was that of an ignorant woman who was not sure of her previous history.

Dr. R. C. Cabot of Boston recently published statistics of the Widal test in the *Journal of the American Medical Association*. His collection numbered 3475 cases, of which 3434 (98.8 per cent.) gave a positive reaction. More recent statistics presented by Brill bring the total of reported cases up to 4879, of which 4781 (97.9 per cent.) gave a positive reaction—a remarkable result considering the great number of cases and the various examiners with many varieties of technic.

Still more remarkable are the results of the following skilled bacteriologists:

Widal and Sicard, 163 cases of typhoid; 162 positive reactions.

Courmont, 116 cases of typhoid; 116 positive reactions.  
Chantemesse, 70 cases of typhoid; 70 positive reactions.  
Johnston and McTaggart, 129 cases of typhoid; 128 positive reactions.

A more accurate conclusion may be reached by considering these last results in which the examinations were conducted by men of unquestioned skill and ability.

It seems to me that the present status of the Widal test may be summarized as follows: (1) It is in the doubtful and mixed cases that the test may be said to find its greatest usefulness; for not more than sixty per cent. of all cases give a positive reaction before the twelfth day, a period at which the clinical symptoms are ordinarily sufficient to determine the diagnosis. (2) If made with proper dilution and culture, a positive reaction is practically pathognomonic of typhoid infection. In this connection the history as to previous attacks should receive consideration. (3) If repeated daily examinations of the serum in a suspected case fail to give the reaction, the presumption is very strong that the case is not one of typhoid. The fact that the reaction may in rare cases not occur until late in the disease prevents the positive exclusion of typhoid.

At the meeting of the American Medical Association at Philadelphia, June 4, 1897, the following was given as a summary of the views expressed by those discussing the serum diagnosis of typhoid fever: "Without being absolutely infallible the typhoid reaction appears to afford as accurate diagnostic results as can be obtained by any of the bacteriologic

methods at our disposal for the diagnosis of other diseases. It must certainly be regarded as the most constant and reliable sign of typhoid fever, if not an absolute test."

The cultivation of the bacillus of typhoid, when obtained unmixed with other organisms, as in puncture of the spleen, is an easy matter, but the procedure becomes complicated and fraught with difficulties when the bacillus is mixed with other germs, as in the fecal discharges. Elsner's method of differentiation, by using a medium containing a small quantity of potassium iodid, has failed to be of practical value. The method of isolation devised by Dr. Hiss of the New York City Health Department offers more promise, though its value has not yet been fixed by general experimentation. My personal experience with the method has been limited and unsatisfactory.

I have examined samples of feces in seven cases of undoubted typhoid fever from the wards of St. Peter's and the Long Island College Hospital, and have been unable to isolate the specific bacillus in any case, though control-plates made from stock cultures of typhoid and colon bacilli have presented a characteristic appearance in all cases. My culture-media were prepared by a skilled chemist, my colleague, Mr. Randolph, and I have discussed the technicalities of the work with Dr. Hiss himself.

Whether my failure to isolate the germs in the cases mentioned was due to faulty technic or to the possibility that the series may have been an unfortunate one, I am unable to say, but I would certainly not presume to base an opinion on the examination of such a small number of cases or cast any discredit on the results of Dr. Hiss. In four of my cases the patients were constipated, a fact which lessens the likelihood of finding the specific germs in large numbers. Orders were given to the nurses to take that portion of the stool which was passed last, and they may or may not have carried out the instructions. I mention these facts to demonstrate the possible sources of error.

In view of my results my main excuse for bringing the matter before you to-night is the fact that the method has been added to the routine diagnostic work of the Bacteriologic Bureau of the Health Department, and is, therefore, a matter of some interest to the practitioners of the Borough of Brooklyn.

The method depends upon the behavior of the micro-organisms of the feces, in certain culture-media which Dr. Hiss has worked out by experimenting with many combinations of nutrient material of varying degrees of acidity and alkalinity. The media he has found to best differentiate the typhoid bacilli from other fecal organisms are two: a

tube and a plate medium. Both consist of certain proportions of agar, gelatin, beef-extract, glucose, and salt, acidulated with a definite amount of hydrochloric acid. If the tube medium be inoculated with typhoid bacilli and incubated at 37° C. (98° F.) for sixteen to eighteen hours, it will be found to be quite uniformly cloudy, the medium becoming semifluid at that temperature, and permitting the motile bacilli to spread rapidly through it. The less motile colon bacillus grows along the puncture and the paths of gas-bubbles formed by it. Very motile colon bacilli may cloud the medium in a manner similar to typhoid germs, but will differ in forming gas-bubbles which find difficulty in escaping from the semisolid medium and remain entrapped therein if the medium be allowed to cool. This forms a striking picture, and is a very convenient method of testing the gas-forming properties of any organism.

The plate medium contains a larger percentage of agar, and thus, by its greater solidity prevents rapid permeation by the germs. Increased acidity also aids in checking their multiplication. After incubation at 37° C. (98° F.), for sixteen to twenty-four hours, the deep typhoid colonies are, under low power, seen to be very small with shaggy edges composed of tiny threads. Some of the smallest colonies are entirely composed of threads without a thickened center. The colon colonies are much larger, more opaque, and have more clearly defined edges.

In testing a suspected sample of fecal matter the specimen is shaken up with five cubic centimeters of beef-tea, from which plate-cultures are made and incubated as described. After incubation they are examined with a low-power lens, and typical or suspicious colonies are isolated and planted in the tube medium for verification. The whole procedure does not occupy more than thirty-six to forty-eight hours.

In regard to other fecal organisms besides the colon bacilli which simulate typhoid, Hiss says: "These organisms must be rare, for in all the samples of feces and water subjected to test (about 200 on December 20, 1897) none have been found giving an appearance not readily distinguishable from that of the typhoid bacillus cultivated at 37° C. (98° F.)."

According to Hiss' preliminary report to the Academy of Medicine, he has succeeded in detecting the bacillus in about fifty per cent. of cases examined once, and in 89.5 per cent. of a series of twenty-six cases repeatedly examined in the New York Hospital. Bacilli were isolated as early as the sixth and late as the thirtieth day, and in a case of relapse, on the forty-seventh day. As a rule, they rapidly disappeared after the fall in temperature, and when they persisted there was special liability to re-

lapse. They were most plentiful from the tenth to the twelfth day of the disease. Thus, it will be recognized that we have in this method simply an additional aid in diagnosing typhoid fever, and, even if experience and experiment prove it to be as useful as its author claims, it presents such a large working error that it will probably be used only in doubtful and atypical cases, in conjunction with the Elsner method and the Widal serum-test. Comparing Hiss' method with the Widal test I believe the latter to be more useful because the working error is not so great, the method is more simple in its application, and the result of an examination may be obtained much more rapidly.

The New York City Health Department is doing most interesting and valuable work in determining the true value of the Hiss method, and to this end offers to examine specimens of feces and urine from any suspected case of typhoid fever in the greater city, reporting the result to the physician within thirty-six to forty-eight hours. Outfits and blanks will soon be obtainable at all the Brooklyn stations for diphtheria cultures.

#### PUERPERAL MYELITIS.<sup>1</sup>

By ARTHUR CONKLIN BRUSH, M.D.,

OF BROOKLYN, N. Y.:

ASSISTANT NEUROLOGIST TO THE KINGS COUNTY AND BROOKLYN EYE AND EAR HOSPITALS; NEUROLOGIST TO THE BROOKLYN CENTRAL DISPENSARY; CONSULTING NEUROLOGIST TO THE BEDFORD DISPENSARY.

PARALYTIC conditions due to organic disease of the central nervous system are unfortunately not a very rare complication of the puerperal state. In the majority of the cases, however, they are due to some pathologic condition of the cerebral blood-vessels which causes rupture or obstruction by an embolus or thrombus, and less commonly they are the result of multiple neuritis. Paralysis, due to inflammatory changes in the spinal cord, are rare as puerperal complications. The obstetric text-books which I have consulted make no mention of this complication, and works on neurology are, as a rule, equally silent. The only reference to this condition which I have been able to find is that of Gower's, who describes acute myelitis as sometimes due to puerperal septicemia. Dr. J. C. Shaw informs me that even in his large experience he has observed but one case.

During the past two years it has been my good fortune to see in the wards of the Kings County Hospital no less than five cases of myelitis occurring as a complication of the puerpary. These cases, brief histories of which are appended, were all of the sub-acute or chronic type, and in them various portions of the cord were involved.

<sup>1</sup>Read at a meeting of the Kings County Medical Association, February 8, 1898.

CASE I.—A. S., aged twenty-nine years; German; presented a history of always having enjoyed good health. Four years ago she was delivered by means of forceps, following which there was slight fever lasting a few days. Upon recovery she found that she was gradually losing power in the lower limbs, and two years ago she became unable to walk. This condition was at first associated with sensations of numbness and formication in the lower extremities, as well as retention of urine, but at the present time these symptoms are much less marked.

Examination, November 19, 1896, revealed the following condition: The patient is unable to walk or stand. Only very slight voluntary movements are possible in the lower extremities, but marked involuntary movements occur at times. All the muscles of the lower limbs are in a spastic condition, with increased reflexes and ankle clonus. There is a diminution of all forms of sensation in the feet and legs. There is slight ataxia of the arms. The act of urination is feeble and incomplete.

CASE II.—C. M., aged twenty-two years; American; unmarried. The patient had always enjoyed good health until her confinement one month previously. During the labor both cervix and perineum were lacerated. Ten days later she rapidly developed the following condition, which continued up to the time when I first saw her.

Examination, September 22, 1896. Patient is unable to walk or stand. There is complete paralysis of the lower extremities, with absence of reflexes and all forms of sensation. She complains of pain referred to the hips and pelvis. There is incontinence of urine.

During the next four months the patient improved so much as to be able to walk a few steps with the aid of a cane, the gait being shuffling, and the lower limbs in a state of spastic paraplegia. Sensation finally returned, the reflexes were exaggerated, and the incontinence of urine was much improved.

CASE III.—N. S., aged thirty-five years; American. The patient's previous history was good. One year ago she was delivered of a dead child. The labor was followed by fever and pelvic pain, lasting about ten days. One week after delivery she suddenly developed marked weakness in the lower extremities, associated with numbness extending upward over the lower part of the abdomen, and girdle sensations at the level of the umbilicus. At the end of twenty-four hours the loss of motion and sensation was complete and there was incontinence of both urine and feces.

Examination, September 10, 1896, revealed the following condition: There is complete paraplegia, associated with partial loss of all forms of sensation and absence of reflexes, though there was no incontinence of urine. There was no improvement in the patient's condition, which ultimately resulted in atrophy of the paralyzed limbs.

CASE IV.—M. S., aged thirty-five years; American. Two months previously the patient had been delivered by means of forceps, and five days afterward she developed within a few hours a complete

paraplegia, associated with feeling of weight and numbness in the lower limbs, girdle sensation at the level of the umbilicus, and vesicle incontinence.

Examination, March 31, 1897, showed that there was almost complete loss of power in the lower limbs. Slight motion in the toes being the only voluntary movements possible. The knee-jerks were increased, and there was partial loss of sensation in the feet and legs, associated with both vesicle and rectal incontinence. This patient improved so much that at the end of six months she was able to walk, though with a spastic gait, and at this time sensation had fully returned, and the control over the bladder and rectum were much improved.

CASE V.—S. G., aged twenty-seven years; Belgian; unmarried. The patient's previous history was good. One year previously she had been confined, and during the labor both the cervix and perineum were lacerated. Ten days later she began to notice difficulty in moving her lower limbs, and at the same time experienced sensations of numbness in her feet and legs.

Examination, May 13, 1896, showed the following condition: The patient can stand, but is unable to walk. There is partial loss of power in the lower extremities, associated with increased reflexes and partial loss of sensation. The bladder occasionally empties itself involuntarily, while at other times there is retention of urine. The condition gradually improved so that at the end of four months she was able to walk, though with a spastic gait; sensation had returned, but the vesical symptoms did not improve.

From the brief histories presented it will be seen that in all five cases the myelitis occurred as a complication of the puerperium. In no instance was there any evidence of previous disease of like nature, all of the patients having been in good health up to the time the disease in question made its appearance. The cause, therefore, of this complication must be sought in the labor itself or in the puerperal period, or in some recognized cause of myelitis which happened to operate at this time, the last being most probable, for the reason that it is not likely, in such a rare complication of the puerperium, that there would be any special etiologic relation between the two conditions.

The recognized causes of myelitis are exposure to cold, severe muscular exertion, blows or falls injuring the spine, fractures and sprains of the spine, extension of inflammation from the vertebrae, syphilis, infective fevers, and septicemia. From the histories presented we are warranted in excluding as causes of the myelitis all but the last, and in regard to this, septicemia, there is sufficient evidence to warrant consideration of the possibility, at least, that it was the etiologic factor in the production of the spinal affection.

In Case I. there was a history of instrumental de-

livery and a febrile movement lasting several days; in Case II., of laceration of the cervix and perineum; in Case III., of stillbirth, followed by fever and pelvic pain; in Case IV., of a forceps delivery, and in Case V., of lacerations of both perineum and cervix. In all of the cases, therefore, there was either a history of a febrile movement, not due to any other assigned cause, or of injuries through which septic infection might readily have entered.

One fact, however, in regard to these cases is peculiar: In all but Case III. the evidence of septic infection was slight or wanting, and though myelitis is a well-authenticated sequela of severe septicemia, both in puerperal and non-puerperal states, I can find no evidence of its occurrence as a complication of such mild cases as those mentioned. It is possible, therefore, that there may have been some other etiologic factor which has escaped detection.

#### A CASE OF INTESTINAL OBSTRUCTION DUE TO MECKEL'S DIVERTICULUM.<sup>1</sup>

By C. P. GILDERSLEEVE, M.D.,  
OF BROOKLYN, N. Y.

ON December 11, 1897, I observed the following case in consultation with Dr. Thayer of this city: The patient, a young man, twenty-one years of age, of slight build, presented the following history: The preceding Thursday, three days previously, about 11 A.M., he complained of pain in the bowels, as he expressed it, and for which he took several doses of Jamaica ginger. He remained at his business all that day and came home at 9 P.M. He remarked to his room-mate that he had been troubled with cramps all day. He went to bed, and hot flannels were applied to his abdomen. He soon became restless, and suffered so much pain that at 4 A.M. Dr. Thayer was sent for. The doctor found him with pulse about normal, and temperature 99.5° F. There was considerable pain and tenderness, most marked about two inches below the umbilicus and to the right of the median line, for which  $\frac{1}{4}$ -grain of morphin was administered hypodermically. An enema was also given, but without result. A few hours afterward another enema was given and was followed by a fair movement. During the day he did not vomit except after taking something into the stomach. I saw the patient the next morning about 9 o'clock, at which time his pulse was 90, and his temperature 100.5° F. There was considerable tenderness and pain, the tenderness being most marked about two inches below the umbilicus and slightly to the right of the median line. Dr. Thayer had diagnosed the case appendicitis, and I concurred in his opinion, although the location of the tenderness was not at the point most common in appendicitis.<sup>2</sup>

<sup>1</sup> Read at a meeting of the Kings County Medical Association, February 8, 1898.

<sup>2</sup> I have observed cases of appendicitis (one in particular in which I operated two months ago) in which the point of most pronounced tenderness upon pressure was about in the same place as in this case.

I advised removal of the patient to St. Peter's Hospital, and he was taken there about noon, but the family had such a strong objection to an operation that I did not at once urge it, his condition at that time being by no means alarming. At 7 o'clock that evening the patient was apparently better; there had been little vomiting, though the bowels refused to act, notwithstanding that he had received six doses of magnesium sulphate (1 dram in hot water every hour). In addition to this several enemata had been given. I now realized that I was dealing with a case of intestinal obstruction, caused, I believed, by a fecal impaction. I ordered the administration of high enemata during the night.

I was called to the hospital the next morning and found my patient in a condition bordering collapse. His pulse was 150 per minute, and extremely weak, respirations rapid, skin cold and moist, and vomiting had become excessive and stercoraceous. There was increased tenderness, marked tympanitic distention, and complete obstruction of the bowels. He was in such a desperate condition that I did not believe that he would live through an operation, and, although I realized that delay was dangerous, I considered it better for the time being to attempt to combat the impending collapse. With this object in view he was surrounded with hot-water bags and given  $\frac{1}{4}$ -grain of spartein,  $\frac{1}{8}$ -grain of strychnin, and 10 drops of digitalis every three hours, and whisky each hour; but in spite of this, the condition did not improve. About 5 o'clock the family consented to an operation, although I had explained to them that it was easily possible that the patient might die upon the table. I then prepared to open the abdomen, but, after examining patient once more, concluded that he had absolutely no chance and refrained from operating. He died within an hour.

At the autopsy the following morning, Dr. Baldwin assisting, I found complete obstruction of the ileum caused by a Meckel's diverticulum, which had become so thoroughly twisted upon itself that it was mechanically impossible for its contents to return to the ileum. The diverticulum terminated in a fibrous cord which formed a complete ring, through which the ileum passed. I believe that the condition was congenital, and that the fatal constriction was due to the twisting of the sac upon itself, thus causing the fibrous ring to tighten its grip upon the ileum so firmly that nothing could pass through the intestine. Even had the constriction not been sufficient to cause complete obstruction the patient was bound to die from the condition of the diverticulum itself, as it contained considerable material which had entered it from the ileum, and, as communication with the intestine had been rendered impossible by the twisting to which it had been subjected, the occurrence of perforation and septic peritonitis would have been but a question of time.

Meckel's diverticulum is said to exist in about two per cent. of all subjects, and is due to a defective closure of the vitelline duct. I have not had time to look up the literature of the subject, but cases of

obstruction from this cause have been reported from time to time. Dennis speaks of two cases which occurred in the Massachusetts General Hospital, in both of which a diagnosis of acute appendicitis was made. In one of these cases operation was successfully performed, and the patient recovered. In the second case the diverticulum was found distended and gangrenous, and the patient died.

In my case, judging from the ease with which the condition was located at the autopsy, I believe that the patient's life would have been saved had I operated shortly after the symptoms referable to obstruction developed. The determination of the point of obstruction was rendered comparatively easy by the fact that beyond the constriction the intestine was nearly collapsed, while above it, the distention was very great. The mere division of the fibrous ring would have released the ileum, and at the same time would have resulted in untwisting the diverticulum itself, after which its contents would have found their way back to the ileum, and the danger of gangrene and perforation would have been averted. But we all know that these acts are much more easily performed at an autopsy than upon the operating-table. It is our duty to appreciate the fact that acute intestinal obstruction which is not relieved by medical measures and is not due to a paralysis of peristaltic action, such as is observed in general peritonitis, constitutes a condition which means one of two things: Death of the patient, or relief by means of an operation, and, while I know that the average surgeon enters the peritoneal cavity with a feeling of perfect composure for the purpose of removing a diseased appendix or some other lesion the location of which can be definitely determined before the incision is made, I believe that in cases of intestinal obstruction, a condition which, with the exception of hemorrhage, is second to no other surgical emergency from a standpoint of gravity, and further, that the element of uncertainty and the fear of failure to locate the obstruction, knowing as we do that it may be at any part of the entire intestinal tract, causes us to be too apt to defer operation until too late.

#### NOTES ON THE PREVALENCE OF FRAMBESIA AMONG THE FIJIANS.

BY A. O. TREBECK, M.D.,  
OF CHARLOTTESVILLE, VA.

FRAMBESIA is almost extinct in England, but is found in some parts of Scotland, in France, and in the South Sea Islands. It is supposed to have been carried from Africa to Southern America and the West Indies by the importation of slaves, and was introduced into Ceylon by Portuguese traders, where, on account of its origin, it is called *Parangi lede*

(foreigner's evil). Captain Cook and other explorers of the South Seas also make some mention of the disease *tona*, as it is called, in their records.

The premonitory symptoms of frambesia, or *yaws*, are difficult of detection, consequently the disease is insidious in its inception, and it is only by the physical signs that one is aware of its existence.

FIG. 1.



Showing lesions of frambesia.

The appearance of the sores is accompanied by a certain amount of pain in the limbs, rise of temperature and restlessness, and these are the first indications that the patient is infected. The first sore varies in size from one to two inches in diameter, and is soon surrounded by other smaller ones. It is called by the natives *tina-ni-coko*, or "mother yaw," and appears on the site of a wound or scratch, and not infrequently on the lips. Other sores soon develop on the neck, groin, or axilla, and at mucocutaneous junctures. In some cases crops of papules appear in an irregularly distributed eruption; the case is then called *coko-se-mi-nin*, on account of the resemblance to the budding flowers of the coconut palm.

In the next stage a soft warty excrescence works its way through the true skin without destroying its substance, and when these appear on the soles of the feet of people unaccustomed to wearing boots their extrusion is extremely painful, on account of the

outside horny growth. When the warts reach the surface of the skin they exude a stinking, viscid fluid, which is highly contagious. As it dries the raised scab with the granulated and mulberry-like sore beneath is characteristic of the disease; hence its name.

In some cases the crusts form a curved outline, not unlike syphilitic rupia, and are consequently called *coko-balewa*, or "lempet-yaws." When healing they form circular or horseshoe patterns, and the center heals before the edge. Not only do the excrescences force their way through the plantar skin, but the whole surface becomes cracked and ex-

FIG. 2.



Showing lesions of frambesia.

coriated; this is said to be nearly as painful as the sore itself. The Fijians regard the communication of the disease as due to mysterious influences, and consequently they do not take any means to treat the malady, and look on the interference of a medical man with anything but favor.

It is well known by those who have had communications with the natives that Fijian mothers think that if their children do not contract *yaws* they will

not be able to withstand attacks of future diseases. They, therefore, hail its appearance with delight, make no attempt to treat the ulcers, and allow the disease to uninterruptedly run its course. It is only when the eruptions prematurely disappear that they think there is any danger. This state they call *maca-vaka-ca* (dry in the manner bad). The majority of children contract *yaws* between the ages of two and six years, but the children of chiefs in many instances are kept from associating with other children of the village till they are older and more physically fit to endure its effects on the constitution.

In mild cases the sores disappear within three or four weeks. They may remain, however, for as many years. Weak children are more severely affected, and become susceptible to diarrhea, marasmus, and even paralysis. In many instances the health of those attacked has been completely shattered, and tertiary effects strongly resembling those of neglected syphilis have proved no less severe than irremediable. The results are impairment of the nutritive and digestive functions, inflammation of the joints, ulcerations, and constitutional weakness, rendering the patient liable to attacks of dysentery, pneumonia, etc.

Cases in which Europeans have been attacked with *yaws* have come under observation in Fiji, inspiring, on account of its repulsive appearance, fear and disgust. When an adult Fijian gets *yaws* a favorite form of treatment is to rub a red-hot knife over a cut lemon and apply it to the sores as a caustic. The experience of European medical men has shown that the free use of the iodid of potassium internally, with an ointment of nitrate of mercury and lactic acid, have been beneficial, especially with a plentiful nitrogenous diet, and iron tonics.

The East Indians imported into the country for work on the sugar plantations frequently contract *yaws*. The accompanying illustrations show two patients thus affected.

#### THE USE OF GLOVES AT OPERATIONS.<sup>1</sup>

By EDWARD MILTON FOOTE, M.D.,  
OF NEW YORK;  
SURGEON TO RANDALL'S ISLAND HOSPITALS.

I DESIRE to call attention to some gloves which have been recently recommended by a German surgeon, and which are a very decided aid in the prevention of infection by the fingers in operating.

It is unnecessary in so brief a sketch to go into the details of sterilization of the hands. It has been proved that this can usually be accomplished by a series of washings and brushings with soap and water,

<sup>1</sup> Read at a meeting of the Section on Surgery of the New York Academy of Medicine, March 14, 1898.

and various disinfectant solutions; but it has been equally well proved that this result can be reached only by a sacrifice of time and epidermis, and by a painstaking attention to detail, of which, unfortunately some of the best surgeons are incapable.

To stop this bacterial leak into the wound some surgeons long ago tried to remove the hands from the operative field altogether, by covering them with gloves of rubber or wash-leather. Thick gloves of whatever material naturally diminish the sensitiveness and dexterity of the fingers, and to avoid this very thin rubber gloves were tried, and are still employed by some surgeons. Zweifel has used rubber gloves for years, covering the arms with linen sleeves, which fit close to the gloves at the wrist. His gloves have no finger-tips, but separate finger-cots of thin rubber are used instead. This is a considerable saving in expense, as a very thin rubber glove is easily pricked or torn in tying ligatures and in suturing. Rubber gloves of an extra fine quality, though not very thin, were shown at the last meeting of the Surgical Society by Brewer, who expressed himself as well satisfied with their use.

Within the past few months Mikulicz has recommended the employment of fine silk or Lisle-thread gloves, which may be sterilized without damage in a steam sterilizer and which may be changed during an operation as often as they become soiled. As they readily absorb blood, it is necessary to disinfect the hands before putting them on, but they are superior to rubber gloves in several respects. They are far less clumsy. To tie a knot of fine silk with the hands encased in rubber gloves is a difficult procedure. They are more durable. They are pervious to air, and, therefore, far more comfortable. The increased perspiration of the hands when rubber gloves are worn, may become a positive danger if removal of the gloves is necessary during an operation. They do not compress the fingers. They will adhere slightly to a slippery tissue, so that dissection of fascial planes with the fingers, as in done in inguinal hernia, is made surprisingly easy.

Attempts have been made to render such gloves impervious to moisture, by saturating them with oil, turpentine, and other substances. This has been most successfully accomplished by Menge, an assistant in the Frauenklinik at Leipzig. The gloves are first dried in an oven and then soaked in absolute alcohol, then in xylol, again in fresh xylol, and then during fifteen minutes in a ten-per-cent. solution in xylol of paraffin of a low melting-point. This is exactly the series of steps used to impregnate microscopic specimens with paraffin, before embedding them. The process sounds complicated, but is really not at all so. It is only necessary to have four wide-

mouthered bottles containing these solutions, and to pass the gloves through the different solutions one after another. In fact, all that is actually necessary is to have one bottle containing a ten-per-cent. solution of paraffin in xylol, and to soak the thoroughly dry gloves in this solution. When taken out and dried they are ready for sterilization. When soiled they may be washed with soap and water, dried, re-paraffined, and sterilized, and are then again ready for use.

These gloves are not absolutely impervious to moisture, but are sufficiently so for practical purposes. If water is poured slowly upon them, it flows off as from any oily surface. If rubbed into them, a certain amount will be absorbed. In this respect the cotton gloves here shown are inferior to those made of silk, but even they are so good that it is a pleasure to use them; and if an operator has cleansed his hands even superficially, and operates by the dry method, and has consideration enough for his patient to keep his fingers on the handles of his instruments and not in the wound, he ought never to see pus. I cannot refrain from emphasizing this last point. Most of the minor surgical operations and some of the major ones can be performed without direct contact between the fingers and the patient. After a little practice, ligatures and sutures may be tied with forceps or clamps; and when a man finishes an operation without a stain of blood on his fingers he is sure that he has not introduced germs from his hand into the wound. Quite recently I had the pleasure of assisting the secretary of this Section, Dr. Walker, in suturing a badly fractured patella. The joint had been widely opened and contained clots of blood, though the skin was not torn. The blood-clots were wiped away, the patella was sutured, and the incision was closed, neither of us having touched the wound nor any part of any instrument or suture which came into contact with it. It is scarcely necessary to add, that the knee never presented a symptom of inflammation.

To summarize briefly, the best means to avoid infection by the hands are as follows: (1) Keep them out of the wound. (2) Wash them, dry them, and cover them with sterilized gloves. (3) For operations within the serous cavities, and for difficult dissections, thoroughly disinfect the hands according to the well-known methods before drawing on the sterilized gloves.

*Floating Naval Hospital.*—Surgeon-General W. K. Van Reyepen, U. S. N., has been inspecting the steamship "Grand Duchesse" with a view to recommending that the vessel be purchased by the Government for use as a hospital ship in the event of hostilities between this country and Spain.

## CLINICAL MEMORANDUM.

## TWO CASES OF TUMOR OF THE CEREBELLUM.

By HOWELL T. PERSHING, M.D.,

OF DENVER, COL.:

PROFESSOR OF NERVOUS AND MENTAL DISEASES IN THE UNIVERSITY OF DENVER.

CASE I.—J. D., aged thirty-five years, was first seen October 16, 1893, in consultation with Drs. A. K. Worthington and W. P. Munn. His mother was subject to headaches, one sister was insane, and one brother died of consumption. The patient was well until September, 1892, when he was kicked by a horse in the right frontal region, and fell, striking on the occiput. After the injury he was unconscious about three hours and vomited. Within a few days he had apparently recovered and went to work. About two weeks after the accident he began to have spells of dizziness in which he was forcibly turned to the left, sometimes being whirled quite rapidly. His own expression was that he "went around like a chicken with its head off." Any change of position caused dizziness. For three weeks the patient was unable to work, but then gradually improved and was apparently as well as ever until August, 1893, when dizziness on motion gradually returned and grew worse, being often accompanied by stiffness of the neck, especially in the morning. Nevertheless, he continued to work until the end of September, when he was obliged to desist on account of dizziness, vomiting, and severe headache. Syphilis was positively denied.

Examination, October 16, 1893, revealed the following condition: The gait is reeling and is about the same whether the eyes are closed or open. Staggering is toward the left, and the left leg is weaker than the right. Motions of the arms, face, and tongue are normal. The knee and heel reflexes are lively and greater on the left side. The pupils are equal and react to light. There are about five degrees of insufficiency of the external recti muscles, causing diplopia when one eye is covered with a red glass. Vision is very slightly below normal in each eye. Both eyes show beginning optic neuritis. Taste and smell are intact. Hearing is slightly impaired by bilateral otitis media. Sensibility to touch and pain is normal in face, hands, and legs. The skin reflexes are lively. The patient's talk is often silly. The examination is somewhat difficult on account of severe headache which is much aggravated by any movement.

During the following month the patient was kept under close observation in St. Anthony's Hospital and treated with inunctions of mercury and large doses of potassium iodid. Nevertheless, he grew steadily worse; the intellect became more and more dulled, vomiting continued, the optic neuritis became more intense, especially on the right side, the right pupil became larger than the left, and the right external rectus was distinctly paralyzed. The knee-jerks disappeared and finally the right side of the face was paralyzed. There was no hemianopsia. During this time the temperature was generally slightly below

normal, never above; the pulse varied from 52 to 70 per minute.

The diagnosis of tumor of the right side of the cerebellum being clear and the condition being otherwise hopeless, an operation was decided upon and performed by Dr. Munn, assisted by Dr. Worthington, November 16, 1893. The patient's condition was bad at the beginning of the operation. The occipital bone was rapidly trephined just below the superior curved line. The dura bulged strongly into the opening but did not pulsate. Beneath it was found a mass of very dark, somewhat softened tissue, evidently a glioma, which was scooped away until apparently normal cerebellar tissue appeared in place of the tumor and there was no longer any bulging. The whole amount removed was about one hundred and eighty grains. After the operation the patient was nearly moribund, but under the influence of stimulants revived and spoke rationally. The evening temperature was 101° F. and the pulse 135. The next day the mind was perfectly clear, the facial paralysis had disappeared, and swallowing was much better than it had been for some time before the operation, but the pulse was very weak and vomiting frequently occurred throughout the day. In spite of the administration of stimulants and hot salt solution, both subcutaneously and by rectum, he grew weaker and died thirty-six hours after the operation. An autopsy showed that the brain was elsewhere normal, and that the glioma had been completely removed except for some insignificant ramifications. The tumor had been entirely within the right cerebellar hemisphere.

As this case is reported at this rather late day only for the purpose of placing its symptoms and the result of operation on record, I shall not discuss any of the interesting features it presents. It should be said, however, that judging from the general result of operations for the removal of cerebellar tumors it would have been better to trephine for the relief of pressure without attempting removal or even opening the dura.

CASE II.—H. C., aged six years, was examined in consultation with Drs. Clough and Seebass, November 29, 1895. The parents and a younger brother were perfectly well, and the most careful investigation failed to reveal any hereditary taint or possibility of syphilitic infection. A year before the examination the patient had complained of occipital pain, but it had passed away. During the summer of 1895 he had a mild attack of whooping-cough, the paroxysms of which seemed to cause a return of the occipital pain, which had afterward persisted, and had been decidedly worse, being also occasionally accompanied by vomiting, during the month preceding examination.

Examination, November 29, 1895, showed the following condition: The gait is staggering, with feet wide apart. There is no other motor defect. Exertion causes pain in the occiput, and the nuchal region is somewhat tender. The skin and tendon reflexes are lively and equal on both sides. Sensibility to touch, pain, smell, taste, hearing, and vision is normal, but there is intense optic neuritis on both sides and the left pupil is greater than the right. The head is proportionately con-

siderably larger than that of the brother, who is eighteen months younger, its circumference being 17.9 inches. The urine contains an excess of urates, but is otherwise normal. The temperature is normal, and there is no sign of suppuration in any part of the body.

The diagnosis of tumor in this case scarcely admitted of doubt. In the absence of alcoholism, plumbism, and uremia, the association of intense optic neuritis with headache and vomiting made the existence of organic disease within the cranium quite certain. Chronic meningitis could hardly be suspected except in the presence of syphilis, of which there was not the slightest indication, and the intensity of the optic neuritis militated against a diagnosis of meningitis. On the other hand, the combination of symptoms and their gradual onset were strongly indicative of brain-tumor. In the absence of other localizing symptoms the staggering gait and nuchal tenderness pointed to the cerebellum as the probable seat of the growth. There was no positive indication of the nature of the tumor. Gumma, however, was excluded, not only by the history and condition of the child and of his parents, but also by the extreme rarity of intracranial gummata in children and of cerebellar gummata at any age. Tubercle seemed more probable than any other form of growth simply because in children it is far more common than any other. The favorable result of treatment strengthens this probability, for, excepting gummata, tuberculous tumors are the kind most likely to be favorably influenced by internal medication. The prognosis given the parents was necessarily very grave, but not altogether hopeless.

The child was vigorously treated with inunctions of mercury and with iodid of potassium internally, alternating with iodid of iron. At the end of two months the ataxia was somewhat worse and the other symptoms remained about the same. Within four months, notwithstanding occasional attacks of headache and vomiting, and the persistence of optic neuritis with distinct impairment of vision, a general improvement was manifest. From that time the optic neuritis began to slowly improve and it finally disappeared altogether without resulting in atrophy. The attacks of headache and vomiting ceased, and the gait steadily improved, so that for nearly two years the parents have regarded the boy as quite well.

It should not be thought, however, that treatment has actually removed the tumor. What may be inferred is that its growth has been arrested and that an excess of fluid in the ventricles has been absorbed.

The main value of this case is that it illustrates the advantage, in a case of tumor, even though it be non-syphilitic, of a patient trial of mercury and iodids before resorting to more radical measures, and, also, of refraining from an absolutely unfavorable prognosis even though the diagnosis of an incurable disease be practically certain.

**Kings County Inebriate Home.**—A bill has been introduced in the New York Senate dissolving the corporation known as the Inebriate's Home of Kings County. The institution is situated at Fort Hamilton, Brooklyn Borough.

## MEDICAL PROGRESS.

**Immunity of the Negro to Certain Diseases and the Causes Thereof.**—CLARK (*Maryland Med. Jour.*, January 8, 1898) calls attention to the fact that negroes present a certain degree of immunity to yellow fever, malaria, chorea, and other diseases. In the case of yellow fever, one attack renders an individual less likely to contract another, and, therefore, it is easily understood why the survivors of a race always subjected to the disease should be to some extent immune to it. In the case of malaria, one attack predisposes to others, so that those individuals prone to have malaria will long ago have succumbed. Hence, those who remain, are less likely to contract the disease than the members of other races. In this writer's experience the susceptibility of a negro to malaria is not more than one-fourth that of a white person. The immunity of the negro from chorea is well-known. This is apparently due to his more stable nervous organization. Clark also cites the fact that an enlarged prostate in a negro is a very rare affection, and that this is the more remarkable when one considers that it is a fibroid condition, and that the female negro is especially prone to fibroid disease of the uterus. He gives as a reason for this immunity from enlarged prostate the fact that but few negroes reach the age at which this gland usually begins to cause trouble, say about fifty-five years.

**Use of the Gigli Wire Saw to Open the Skull.**—KEEN (*Philadelphia Med. Jour.*, January 1, 1898) describes his experience with the Gigli wire saw, a new instrument consisting of a twisted steel wire with sharp edges and two handles attached. The wire is passed from one trephine opening to another, and the action of the instrument is similar to that of the old-fashioned chain saw. In this way an osteoplastic flap of any desired size may be removed. The advantages of the saw are first, that one is able to bevel the edge of the bone-flap in such a way that it will not sink into the cavity of the skull when replaced. There is practically no loss of bony tissue, as the saw is so thin. The second advantage is that when a bone-flap has been sawed on three sides it is possible with the saw to cut from the inside outward through the fourth side of the flap, thus avoiding the ragged, broken edge which is invariably present when the flap is pried out by main force. The third advantage is that the saw avoids the jarring produced by a mallet and chisel. This advantage is a purely theoretic one in Keen's opinion, as he has never seen unpleasant effects follow the use of a mallet and chisel which could be attributed to jarring. The wires of the saw can be used only once, as being so very fine they quickly wear out and curl up. A number of them of various sizes should be prepared for each operation.

**The Significance of Mucus in Stools.**—SCHMIDT (*Fortschr. der Med.*, January 1, 1898) says that the characteristics of mucus in the stools are not sufficiently exact to enable one to diagnose therefrom a special form of membranous enteritis, as Nothnagel has attempted to do. The mucous origin of the so-called yellow mucous

grains, "gelben Schleimkörner," is, moreover not proved. The basic substance of the membranes is mucus or mucin, and they contain considerable amounts of fat and soap. Fibrin has not been definitely proved to exist in their composition. Unless there is a very rapid passage of the intestinal contents through the large bowel, particles of mucus from the small intestine can scarcely reach the anus without being dissolved.

**Resection of the Saphenous Vein for Ulcers of the Leg.**—HEINTZE (*Deut. Zeit. für Chir.*, vol. xlvii, p. 107) lauds resection of the saphenous vein in the treatment of chronic ulcers of the leg. He advocates the removal of from two to five inches of the upper end of the vein in order to resect it below some of its largest branches. Patients are kept in bed three weeks or longer, and the ulcers are dressed with any suitable salve. He cites a list of seventy-nine cases in which this operation has been performed, thirty-five times upon women and twenty-eight times upon men. Only nine of these patients (it is worth remarking) were more than fifty years old. The results were excellent. At the time of discharge from the hospital all of the ulcers excepting four were completely healed.

Heintze explains the good effects of this operation upon the supposition that the valves which ought to shut off the saphenous vein from the femoral often act imperfectly. In consequence blood passes from the vena cava backward into the saphenous vein, and from there into the deep veins of the leg, where the current, assisted by muscular action and valves, is again upward into the vena cava. Even if an actual back-flow does not take place in the manner indicated, there is a stagnation in the current which interferes with the nourishment in the skin of the leg, and thus the least scratch causes ulceration. That the improvement noticed in his patients was not simply due to rest in bed, was shown by the fact that a number of them were kept in bed for some days before operation, without any marked change in the condition of the ulcers. The time is yet too short to form an opinion as to the permanence of the cure in these cases.

**How Bacteria Are Influenced by Prolonged Exposure to Roentgen-rays.**—BONOMO and GROS (*Centralbl. für inn. Med.*, December 31, 1897) have established the interesting fact that long exposure of bacteria to Röntgen-rays lessens their power of growth and their virulence. If two or three successive generations are exposed to the rays these alterations become evident, and are associated with diminution of the power of motion and changes in chromogenous power in such bacteria as possess this function. Spore formation is also destroyed, especially in the case of the anthrax bacillus. Unfortunately, as far as any practical application goes, even prolonged exposure to the rays for two or three generations, did not entirely destroy virulence.

**The Influence of Morphin and Ether upon the Pains of Child-birth.**—HENSEN (*Archiv. für Gynäk.*, vol. 51, p. 129) says that morphin in doses of  $\frac{1}{4}$ -grain or less is without any influence upon the contractions of the uterus or the

abdominal pressure during child-birth. Ether, on the other hand, when administered one or two minutes reduces the force of the pains and lengthens the intervals between them. In five to twenty minutes after suspension of the ether the contractions are again normal. In ether narcosis the abdominal pressure is lessened. These results show the advantage of ether over chloroform, for the latter exerts an unfavorable influence upon the pains, sometimes lasting for two hours after its administration has been discontinued. For example, when version is necessary, or it is wished to apply the forceps, in complete narcosis, and to allow Nature to finish the labor in partial narcosis, ether is far preferable to chloroform. It is for the same reason less likely to produce atony of the uterus which so often follows the administration of chloroform.

## THERAPEUTIC NOTES.

**Instantaneous Cure of a Long-Standing Case of Borborygmus.**—VEIRE (*Bull. Gen. de Therapeut.*, January 8, 1898) reports the case of a girl, aged fifteen, who for more than two years had been troubled with borborygmus. The noises were so loud that they could be heard in the next room. After an attack of borborygmus had continued several hours a great quantity of gas would be brought up, and for a short time the noises would cease. Veire made a diagnosis of ectasia and ptosis of the stomach. He prescribed a close-fitting bandage. A month afterward the patient stated that from the time when the bandage was first applied the noises and formation of gas had entirely ceased.

**How to Administer Creosote.**—In order to obtain the best results from the use of creosote more attention should be paid to the method of administration. According to a writer in *La Méd. Moderne*, December 29, 1897, the best of all the numerous methods suggested is to give the drug by mouth in capsules, each one of which contains  $\frac{1}{10}$ -grain of pure creosote, emulsified with 1 grain each of cod-liver oil and balsam of tolu. In this manner the disagreeable taste and odor are avoided, while this emulsion is one of which all the ingredients exercise a favorable influence upon the respiratory tract and do not irritate the mucous membrane of the stomach. Many writers have at different times reported great satisfaction with the administration of this drug by inhalation, friction, introduction into the rectum, and by subcutaneous injection, but none of these methods have stood the test of experience.

**Puerperal Sepsis and Antistreptococcic Serum.**—CLARK (*Boston Med. and Surg. Jour.*, January 13, 1898) gives the history of two cases of puerperal sepsis in which Marmorek's antistreptococcic serum was employed, 20 cubic centimeters being injected at one time into the gluteal region. In one case, particularly, the improvement was so prompt after the serum had been injected, and the patient was before in such a bad condition, that Clark felt sure that recovery was due to the serum alone.

# THE MEDICAL NEWS.

A WEEKLY JOURNAL  
OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed *exclusively* to THE MEDICAL NEWS will after publication be liberally paid for (accounts being rendered quarterly), or 250 reprints will be furnished in place of other remuneration. When necessary to elucidate the text, illustrations will be engraved from drawings or photographs furnished by the author. Manuscripts should be typewritten.

Address the Editor: J. RIDDLE GOFFE, M.D.,  
No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK.

## Subscription Price, including postage in U. S. and Canada.

PER ANNUM IN ADVANCE . . . . .	\$4.00
SINGLE COPIES . . . . .	.10
WITH THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, PER ANNUM . . . . . 7.50	

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made, at the risk of the publishers, by forwarding in *registered* letters.

LEA BROTHERS & CO.,  
No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK,  
AND NOS. 706, 708 & 710 SANSON ST., PHILADELPHIA.

SATURDAY, MARCH 26, 1898.

## THE EFFECT OF THE MODERN BULLET.

THE credit, if credit there be, for the development of the most deadly fire-arms the world has ever known belongs to Germany. The Germans have also been most painstaking in figuring out the exact effect upon a person who stands in the range of a high-velocity bullet. In these days of rumored war, a review of a book recently published upon this subject by Köhler, will doubtless be of interest to army surgeons as well as to many a possible target for rifle practice.

When a bullet of very high velocity strikes a receptacle containing a fluid or semi-fluid, there is a destruction of the receptacle entirely out of proportion to the size and direction of the missile, so that the force under these conditions has been spoken of as an explosive one. This is manifest if the head or stomach or intestine is encountered, provided, of course, that the viscus be full. Scientists have been at a loss to explain this manifestation of great force, and it has been loosely spoken of as "hydraulic," some men claiming that the hydraulic power shown in such cases was equivalent to the force of the bullet distributed over the whole surface of the skull, and others stating that every portion of the skull,

equivalent in area to the cross-section of the bullet, was by reason of this hydraulic power, impinged upon with a force equal to the impact of the projectile, *i.e.*, a true hydraulic pressure.

Köhler says that these hydraulic theories are unsupported by facts. The true explanation of the great destructive force of high-velocity missiles, is that they do not give the fluid time to move out of the way. It has, therefore, the resistance of a solid body. Now a blow on a solid body is distributed in ever-widening circles, as can readily be seen in the chipping of an arrow-head, or from a large scale which a bullet breaks off from the reverse side of a plate of sandstone, if its power is not sufficient to penetrate it. The following experiment also shows the slowness with which fluids recede before a very swift projectile. A board is placed a few inches below the surface of the water, and a bullet at low velocity fired into it. The bullet passes through the water and penetrates the board. Let the speed of the projectile be great enough, however, and it is shattered into pieces on the surface of the water, and the board is unharmed.

If this lack of mobility of a fluid is difficult to understand, one has only to think of the difference in the feeling when the hand strikes the surface of the water, slowly, and when it strikes with great speed, and then to consider that a modern bullet moves at such a rate that it takes only the 2000th part of a second to traverse the skull. This amount of time is far too brief, according to Köhler, for any hydraulic power to manifest itself, for before it could begin to act, there would be two holes in the skull, one of entrance and one of exit, out of which the fluid could escape and so relieve pressure.

"Suspended liability" is the name suggested for this new theory, which at least bears the semblance of truth.

## DR. CLEAVELAND AND HIS ACCUSERS.

THE arrest and indictment for manslaughter of a well-known physician of this city a few days ago, charged with having prescribed salol and resorcin for a child six weeks old, which caused its death nearly a year ago, was referred to in last week's issue of the MEDICAL NEWS. The matter is of such importance that it seems to call for more than passing notice, and that for several reasons. Aside from the fact

that both salol and resorcin are not ordinarily looked upon as lethal drugs, the description of the child's illness contained in the public press corresponds so completely with the symptom-complex of an attack of cholera infantum that at first sight it is difficult to conceive the grounds taken by the District Attorney in the conduct of the prosecution. There was no necroscopic examination, and the physician who saw the patient in consultation after the collapse symptoms developed, a man of great skill and an authority on the action of drugs, is quoted as supporting in every way the physician under indictment.

The prosecution apparently rests on the affidavit of a physician of this city who avers that, in his opinion, the child was poisoned to death by the drugs used. This opinion is said to be concurred in by a number of physicians, most, if not all, members of the profession in good standing, who have reached this conclusion after listening to the mother's story. In brief, it would seem to the unimpassioned observer that the prosecution of the defendant is in reality a persecution by his professional brethren. If this be true it is a most deplorable state of affairs, and one of serious consequence to the medical body politic. A number of physicians in this and in other cities have been interviewed by the mother of the dead child, and by her agents, with the object of getting an expression of opinion as to the lethality of the drugs given. Naturally, the majority of these physicians refused to discuss the merits or demerits of the case without other knowledge of it than the mother's *ipse dixit*. Others were not deterred from making known their views and of embodying them in letters or in verbal communications which have been available to the public press. Some of these expressions were couched in such extravagant language that they bear unmistakable marks of exaggeration by the reporter, and lead to the conclusion that the speaker was either tricked into some unguarded admission or induced by mutual friends to innocently state his hypothetical opinion. Nevertheless, the lesson is a most pertinent one that absolute silence under such circumstances is the only just attitude.

No one will question the right of an individual to personal opinion, but it is a universally admitted fact that an opinion based on hearsay evidence is well-nigh valueless as testimony. We have no doubt that the courts will deal justly with the defendant in

question, and that justice meted out to him will be an honorable acquittal. There is a question of duty to one's fellow man—and of ethics—involved in this matter that should not be allowed to pass unremarked. If the *esprit* of the medical profession has come to such a pass that it will tolerate the gratuitous persecution of one of its members by others who are in no way concerned, then we should cease discussing canons of conduct, and forget with all possible haste the maxim: "Do unto others as you would have them do unto you."

We feel sure that when Dr. Cleaveland is placed on trial he will not be lacking the volunteered service of the medical men of this city, and of this country if needs be, whose opinion is worth having. We have abundant faith in their willingness and desire to maintain that the character of a man, who in the eyes of the law is innocent, shall not be snatched from him by the inflammable misquoted words of a few professional brethren.

#### THE BLOOD-SUPPLY OF THE HEART-MUSCLE AND THE INFLUENCE OF DIGITALIS UPON IT.

ONE of the great difficulties which stands in the way of rational therapeutics is our lack of knowledge as to the actual living functions of certain vital parts of the human body. Researches in morbid anatomy reveal to us the results of disease, and the study of pathology, or morbid physiology, is often rewarded by valuable discoveries, while investigations in the realm of physiology proper give us clear ideas of healthy functional activity. Far too little is really known as to minute but important facts concerning the blood-supply of vital organs, and this is particularly true of the heart, an organ whose living functions in man cannot be minutely studied. Interference with its blood-supply, of a severe and suddenly developed form, may speedily produce death, as, for example, in disease of the coronary arteries, and changes in the myocardium, secondary or primary, may so result. These facts we know chiefly from post-mortem findings. Of the action of drugs upon the cardiac functions we know only facts demonstrable by an examination of the thorax and the pulse, the effect on the general condition of the patient, and from studies of a more direct character made upon the circulatory apparatus of animals.

For many years it has been known that digitalis does good in most cases of failing compensation following cardiac valvular lesions, and basing our views upon animal experimentation, fairly satisfactory statements of how it does good in the various diseases have been offered. Almost all of these have dealt with its mechanical influence upon the blood-current, and only imaginative reasoning has been utilized in explaining how the final good effects are produced; for it certainly is a fact that in some cases at least the beneficial influence of digitalis does not cease as soon as the use of the drug is discontinued, but persists for a long time after all its direct and immediate effects have passed away. In other words, digitalis not only has a direct stimulant effect upon the heart-muscle, but under its influence this tissue obtains a better tone, its nutrition is improved, and it is in every way more fit for the proper performance of its duties.

Aside from the well-known regulation of the cardiac beat produced by digitalis through its effect upon the pneumogastric nerve, how does it improve cardiac nutrition and power? This is the question which is important, and the answer to which has not been forthcoming until recently, except in a hypothetical manner. It has been hinted that the stimulation of the vagi not only slows the heart-beat, but that these nerves, being the trophic fibers, their stimulation results in an improved nutritional process. Again, it has been thought that the mere slowing of the heart-beat and prolongation of diastole produced by digitalis allowed of a better blood-supply to the heart-muscle, with improved nutrition as an indirect result of vagal stimulation, but these views have been rather theories than statements based upon facts, as we have already pointed out.

Wood teaches that the supply of blood to the heart is driven into the coronary arteries during diastole, and that the force which propels it is derived from the arterial system; or, in other words, that while all the other arteries in the body are filled by systole, the coronary arteries are filled by diastole. This is, however, only partly, if at all true; for Rabatel (Paris, 1872) has proved that the blood wave under systole is synchronous in both the general arteries and those of the heart itself; that is, the coronary arteries are filled during systole. This fact has recently been confirmed by W. T. Porter

(*American Journal of Physiology*, March 1, 1898), who has proved, as has Pratt, that the systole of the heart which fills the coronary arteries also results in such a pressure upon the terminal intramural arteries that they are emptied, and thus allows the free entrance of fresh blood as soon as diastole begins. In other words, an increased systolic contraction of a ventricle not only fills the coronary arteries with blood, but at the same time urges on the blood already in the intramural vessels, and so a greater blood-supply is brought to the heart-muscle in a minute if its systole is complete and forcible than if it is incomplete and feeble. These results, obtained in the laboratory, are in direct confirmation of the hypothetical explanation given by the writer of this article in his work on "Practical Therapeutics" (p. 567) as to the manner in which the heart-muscle is nourished under digitalis.

The next question of interest is whether improvement in the heart-muscle is simply one of tone or due to an actual increase in its muscular growth and power. The answer to this question is that both effects are produced. That the tone is improved is self-evident to the clinician who uses the drug properly in suitable cases. That the muscle-fibers are strengthened and hypertrophied is indicated by a research recently published by the writer of this article in the *Therapeutic Gazette* for December, 1897. In this investigation two sets of young pigs belonging to the same litter were carefully weighed and prepared for the experiment. One set of five received ascending doses of normal liquid digitalis for a period of four and a half months, and the other set were reserved as a control experiment. After the lapse of time named both sets were killed and the hearts of all carefully examined macroscopically and microscopically. Both these methods of study revealed an increase in the size of the hearts under digitalis, and the muscular tissue when cut was firmer in these hearts.

Finally, it is interesting to note the results reached by Dr. Ida H. Hyde in a study of the effect of distention of the ventricle upon the flow of blood through the heart walls (*American Journal of Physiology*, March, 1898) in which she shows that this condition, even in moderate degree, may diminish the flow of blood through the heart-muscle. Distention of the heart is well recognized as a re-

sult of violent muscular exercise, and is frequently seen in persons who habitually lift heavy weights and in mountain-climbers, athletes, and hod-carriers. In this connection Hyde's study would seem to indicate that digitalis by stimulating the heart-muscle may overcome the distention and improve cardiac action by improving the cardiac circulation.

H. A. HARE, M.D.

## ECHOES AND NEWS.

*Yellow Fever in Rio de Janeiro.*—Yellow fever is prevalent in Rio de Janeiro, and for a week past twelve deaths from the disease have occurred daily.

*Appropriation for Care of Epileptics.*—The bill appropriating \$161,000 for the Craig Colony of Epileptics has been passed by the New York Senate.

*Bacterial Treatment of Sewage.*—The British Government has decided to appoint a Royal commission to inquire into the bacterial treatment of sewage.

*Bequest to Jefferson Medical College.*—By the will of the late S. C. Shain, Jefferson Medical College, Philadelphia, has received \$7000 for scholarships and prizes.

*Donation to Pomona College.*—Dr. E. D. Pearson of Chicago has donated \$25,000 to Pomona College, Pomona, Cal., to be used by the trustees to defray the expense of erecting a new science building.

*Commission to Study the Propagation of Tuberculosis.*—The Paris Academy of Sciences, upon the motion of M. Brouardel, has appointed a commission to study the question of the propagation of tuberculosis.

*St. Vincent's Hospital Asks for Appropriation.*—A bill recently introduced in the New York Senate authorizes the payment by New York City of \$30,000 a year to St. Vincent's Hospital for the maintenance of indigent patients cared for in that institution.

*The Sheppard and Enoch Pratt Hospital.*—In order that it may receive the \$1,500,000 bequeathed to it by the late Enoch Pratt, the Maryland Legislature has passed a bill allowing the trustees of the Sheppard Asylum to change the name of that institution to the Sheppard and Enoch Pratt Hospital.

*Bellevue Hospital and the State Board of Health.*—President William R. Stewart of the New York State Board of Charities, calls attention in his report to the unsanitary condition of the cellars of Bellevue Hospital, New York City, and also refers to the overcrowding of the alcoholic wards.

*Investigation of Zymotic Diseases.*—A gift of \$5000, to be used in promoting the study of the diseases of the Congo, has been received by the Society of Colonial Studies of Brussels, and the Society offers two prizes of

\$500 for some notable addition to the knowledge of the evolution of the hematozoon of Leveran and for the discovery of the origin of hemoglobinuric fever.

*St. Mary's Hospital (Hoboken).*—An addition to St. Mary's Hospital, Hoboken, N. J., has just been completed. The new wing is 228 x 175 feet, affords accommodation for an additional two hundred patients, and cost \$225,000. There has also been added a dissecting-room and a chapel, the latter capable of holding six hundred people. The hospital is non-sectarian and is under the care of the Little Sisters of the Poor of St. Francis.

*Inspection of Lodging-houses.*—The New York houses for lodgers are said to number 113, at least that is the number on record in the Department of Health as being operated under an official permit. In consequence of the disastrous fire which recently occurred at one of the Bowery houses a simultaneous inspection was made of the entire number on a given night. The result was quite satisfactory, as only five of the houses were discovered to be conducted in violation of the terms of their permits or of the requirements of the lodging-house law.

*Absence of the Diaphragm.*—An unusual case of diaphragmatic hernia occurring in a new-born infant is referred to in a recent number of the *British Medical Journal*. At birth the child was very livid and the heart could be felt beating on the right side of the chest. Various methods of artificial respiration proved unavailing, and the child soon died. Autopsy showed that the left half of the diaphragm was absent and that the abdominal viscera had entered the thoracic cavity, pushing the heart to the right, and compressing the left lung into a very small solid mass.

*Quarantined Patients without Food.*—At Middlesboro, Ky., forty cases of variola and twenty-nine suspects are quarantined in the pest-house and there are no funds to pay for their care. Dr. McCormack, chief inspector of the State Board of Health, says the State has no funds to be used for this purpose, the county refuses to make an appropriation, and the city is bankrupt. Surgeon Wertenbaker of the Marine Hospital Service, who was sent to investigate the situation, is anxious and willing to render Federal assistance, but can only do so on invitation of the State Board of Health. Dr. McCormack vigorously opposes Federal intervention and states that if the county does not render the necessary aid, he will withdraw and release the patients. Meanwhile the latter have been without food for two days and threaten to make their escape.

*Unsanitary Bombay.*—According to the correspondent of the *Lancet* (London), the conditions in which the native poor of Bombay live are terrible in the extreme. The present epidemic has given opportunities for inspecting the over-crowded houses, and the dark, unventilated rooms, filled with the fumes of cooking and burning wood—there are no chimneys. A large number of houses were found in which the rooms, especially on the ground and first

floors, were without windows and absolutely pitch dark. In many of the houses an imperfectly covered drain runs through the hallway on the ground floor, and privies are often placed in dark and totally unventilated corners. The night-soil is collected in baskets placed beneath the native form of closet, and the habits of the natives are so filthy that the condition of these places is beyond description. To make matters worse, the floors and passages are smeared with cow-dung, which is put to such a variety of purposes in India that it is considered heresy to complain of it. It is collected in the streets by the women, and messed about the house with utter indifference as to the danger of its polluting the food and drink. The first step toward reform should be the abolishment of the use of this material. As might be expected, the over-crowding is excessive. In one large room thirteen families, with their separate cooking-stoves and domestic conveniences, were counted. The people work hard, especially the women, and their fare is a meager diet of rice and flour, with butter of some sort, and perhaps vegetables and fruit.

**Diphtheria Statistics in New York City.**—The following statistics relative to the occurrence of diphtheria in this city (Boroughs of Manhattan and the Bronx) well illustrate the reduction in mortality attendant upon the use of antitoxic serum:

DEATHS FOR JANUARY AND FEBRUARY, 1894-1898.

	1894	1895	1896	1897	1898
January .....	350	210	208	162	91
February .....	260	175	187	133	109 <sup>1</sup>
Total .....	610	385	395	295	200

DEATH-RATE FROM DIPHTHERIA AND CROUP FOR THE MONTHS OF JANUARY AND FEBRUARY, 1894-1898.

1894	1895	1896	1897	1898
2.03	1.23	1.23	0.89	0.59

Diphtheria antitoxin came into use in New York City in the autumn of 1894. The Department of Health placed its serum in use January 1, 1895.

**Liquid Air Readily and Cheaply Produced.**—Professor Peckham of the Adelphi College of Brooklyn, has made the first public demonstration of the new discovery of Mr. T. C. Tripler of Manhattan, comprising the liquefaction of air. For many years chemists have been searching for the absolute-zero. Scientists had been on this hunt with as much eagerness as explorers had been searching for the North Pole. The announcement had been made that at 273° C. below zero, 460° F., all heat would cease. About 330 degrees in liquid oxygen had been reached. The first scientists to liquefy oxygen did

so at a cost of \$2500 a quart. Mr. Tripler has recently discovered a method to produce it at a nominal cost with a forty-horse-power engine. He could make from two to three gallons every hour of a liquid air, which can in this form be drawn out in pipes and can be handled as easily as water. As soon as it comes out it begins to boil violently until the air about it is frozen and cooled, then it ceases to boil. Those present witnessed the novel sight of a mercury hammer. The professor took a handful of fluid mercury and placed it in a kind of mold. This was placed in a pot of liquid air, and before it became hard a rod of iron was inserted in the mercury. In a moment the professor drew out what appeared to be a hammer with a silver head. The mercury had become frozen so hard that a nail could be driven with it. Several other curious experiments were made. This discovery is regarded by Professor Peckham as second only in importance to that of the Röntgen-ray.

**Obituary.**—Dr. Alexander Russell Strachan died March 1st at his rooms in the St. Cloud Hotel, New York, from bronchopneumonia following la grippe. He was born in Canada about seventy years ago, and named after his uncle Lord Alexander Russell. His preceptor was the great Dr. Rolph, founder of the Rolph School of Medicine. He was graduated from Victoria College, Toronto, in 1861, and in 1862 and 1863 served as resident physician in St. Luke's Hospital, New York, then in its youth. He was a member of the Academy of Medicine, County Society, and Society of Alumni of St. Luke's Hospital, but had not of late years attended many medical meetings because of marked deafness. However, his love of books provided him plenty of entertainment at home. He was a gentleman of the old-school type, and much beloved by all who knew him. Almost the last time he was seen on the street was the day he sprang to rescue a woman and child from a cable-car. He saved them but was himself knocked down. Dr. Strachan left no family.—Dr. John T. Conkling recently died at his home in Brooklyn, New York City. He was born in 1825 in Smithtown, L. I. He studied medicine in the College of Physicians and Surgeons of New York, and was graduated from this institution in 1855. He settled in Brooklyn and established a practice there. In 1866 and 1867 he was sanitary superintendent of the Brooklyn Board of Health and was in charge of the Board of Health during the cholera epidemic. In 1874 he was appointed Health Commissioner of Brooklyn, and served in that capacity during the following three years. Dr. Conkling was a member of the Practitioner's Club of Brooklyn, of the Hamilton Club, and of the Medical Society of the County of Kings.

#### An Ointment to Abort Furuncles.—

R	Euophen	.	.	.	.	gr. lxxx
	Ol. olivæ	.	.	.	.	3 iiss
	Vaselini	}	aa	.	.	3 vi.
	Lanolini	}	.	.	.	

M. ungt. Sig. Apply to affected area, covering with sterilized gauze.

<sup>1</sup> To February 26th, inclusive. Monthly returns not as yet made up.

## CORRESPONDENCE.

### THE CLEVELAND CASE—A PERSONAL STATEMENT BY DR. NORTHRUP.

*To the Editor of the MEDICAL NEWS.*

DEAR SIR: Allow me to avail myself of your columns to state my connection with this unfortunate indictment of Dr. Cleveland. First, as to my connection with the affair at all. A personal friend called at my office, bringing an Assistant District Attorney and Mrs. Carhart. After the attorney had stated his wishes, my first words were: "Am I wanted as an expert witness?" His answer was: "Yes." I then said: "An expert witness has the right to decline, has he not?" He said: "Yes; but in the interest of humanity I hope that you will not." I replied: "I do decline, and on no account will I have anything to do with it." To everything he had to urge, I reiterated my refusal with absolute positiveness. After this, the mother narrated the case at the suggestion of my personal friend, without giving either names of persons or localities, and asked my opinion upon it. Let it be remembered that until I saw the account in the newspaper I did not know the name of the Doctor or whether he lived in New York or New England.

Having declined to serve and supposing that what I now said was merely of a private nature, I expressed myself as nearly as I can remember as follows: "As the facts are represented to me my first impressions are that there is some causal relation between the size of the dose and some of the symptoms." I have no remembrance of using any such flamboyant expression as has been attributed to me in the press. To my surprise and annoyance, a few days later, I was summoned before the Grand Jury. The substance of my testimony there was that I had no experience that would enable me to give any answer to the question whether the dose mentioned was dangerous.

W. P. NORTHRUP, M.D.

NEW YORK, March 21, 1898.

### SMALLPOX IN ALABAMA.

*To the Editor of the MEDICAL NEWS.*

DEAR SIR: Apropos of your editorial on the smallpox epidemic in Alabama, which appeared in your issue of March 12th, I offer for your consideration the following: The Board of Health of Jefferson County, Alabama, declared smallpox epidemic in Birmingham in July, 1897. The local papers all made the announcement.

Every county in Alabama has a Board of Health which has well-defined powers and a legal status. Every county health-officer in the State is required by law to furnish vaccine free of cost at all times. There is, however, no compulsory-vaccination law in the State code. There is a large proportion of our population who will not submit to vaccination when it is voluntary.

Under the charter of the City of Birmingham the Council has power to pass a compulsory-vaccination law, and upon request of the Board of Health proceeded to pass it as soon as smallpox was declared epidemic. A

corps of vaccinators, house-disinfectors, and inspectors was appointed without delay, and during the next three months the vaccinating-corps went over the city four times.

Every day reports were published in the papers—every day a report was made by our local health-officer, by request, to the Surgeon-General of the Marine Hospital Service. These reports were published regularly by the Surgeon-General, and must have been sent to your journal. After some three months the epidemic was so much under control that most of the inspectors and vaccinators were discharged, and later, when no new cases were reported during four weeks, the epidemic was declared to be at an end. Cases soon, however, began to appear, being imported into the city and county, and the health machinery, consisting of pest-house, detention-camp, inspectors, ambulances, etc., was continued in operation until Dr. McGruder took charge.

Good and efficient work has been done by the Marine Hospital Service, but perfect results have not been attained—for smallpox has not been eradicated. More than \$20,000 has been expended by our county and city authorities, besides the money spent by the Marine Hospital Service in its eight-weeks' work. The reasons for this failure are plain: absence of State compulsory-vaccination law, a prejudice against vaccination, and lastly, the mildness of the disease during the present epidemic. Had the disease been of the ordinary type, as regards severity, it is safe to assume that the systematic concealment of cases would not have been practised by our colored population. The truth has been that many of them seemed to dread the sore arm incident to vaccination more than they did the mild smallpox, which, in not a few instances, did not even confine them to bed. This mildness was especially observed in children, contrary to the usual rule. Regular detective work was required of the inspectors in their efforts to find the cases—such were the expedients employed to conceal them.

When smallpox will be eradicated from Alabama and adjoining States is problematic; certainly not until compulsory-vaccination laws are passed, accompanied by large appropriations for their enforcement. The disease has been in lower Alabama for nearly a year and a half, having been introduced from an adjoining State.

From a medical standpoint the interesting feature has been the extreme mildness of so many of the cases.

Very truly,

THOS. D. PARKE, M.D.

BIRMINGHAM, ALA., March 17, 1898.

### PROTARGOL: A NEW REMEDY FOR GONORRHEA.

*To the Editor of the MEDICAL NEWS.*

DEAR SIR: Through your valuable journal I wish to make the medical profession acquainted with the results attending the use of protargol in gonorrhea in the polyclinic of Drs. E. Frank and A. Lewin at Berlin.

Since the discovery of the bacterial cause of gonorrhea by Professor Neisser of Breslau, not only has the diag-

nosis of specific urethritis been rendered more easy and certain, but new impetus has been given to the attempts to discover a specific treatment for the disease. So long as no such specific existed, the more conservative men have always warned against active interference, *i. e.*: injections, during the first ten days or two weeks of the disease at least, because they have too often seen a gonorrhea posterior acuta follow such treatment. The reason thereof is clear: none of the remedies thus used were able to destroy the gonorrheal virus, and, therefore, they often only transplanted it into new areas.

Of late years Janet has claimed splendid results by the frequent irrigation of the urethra and bladder with a solution of permanganate of potash. He does not claim that the gonococci are directly destroyed, but that the soil is rendered so unfavorable to their development that they cannot thrive or even live thereon. Not only is this treatment tedious and expensive, since the patient must be seen twice daily, but the results, in other equally skillful hands, have been far from satisfactory. This is likewise easily explained. In the first place, the remedy is not a specific; and, secondly, it occasions, very often, extremely severe irritation.

Professor Neisser and his followers have, therefore, endeavored to discover some substance which would directly destroy the gonococci, and, at the same time, produce no marked irritation of the urinary tract. Nitrate of silver has long been used in the so-called abortive treatment of gonorrhea, and occasionally with the most brilliant results, but, as a rule, it produces an intense irritation of the urethra and often epididymitis and other complications. Nevertheless, bacteriologic experiment has demonstrated that silver is the most active poison for the gonococcus. The unsatisfactory results attending its use are due partly to the above-mentioned irritation and partly to the fact that nitrate-of-silver solutions are precipitated by albumen and by solutions of sodium chlorid.

Urine or pus, adhering to the walls of the urethra, thus reduces the silver to an inactive compound before its destructive effects upon the gonococci can be exerted. The coating so formed prevents the contact of the silver which remains unprecipitated with the diseased areas. The same holds true of the recently recommended silver compound, argentamin.

Persistent efforts in this direction have, however, been finally rewarded by the production of two efficient and almost non-irritating silver preparations, argonin and, very recently, protargol. Argonin is non-irritating, and certainly exercises a destructive influence upon the gonococci, but the length of time until their final disappearance (eight to twelve days) is so great that they are able to migrate deep into the mucous and submucous tissues, as well as into the posterior urethra, the prostate gland, and the epididymis.

Professor Neisser published the first report concerning protargol in the Berlin *Dermatologische Centralblatt* (edited by Dr. Max Joseph) for October, 1897. This substance is a chemic combination of silver (manufactured by Friedr. Bayer & Co., Ebberfeld) with a proteid body in the form of a fine yellow powder; it is easily soluble in

ordinary water, and is not precipitated by albumen, salt solution, dilute muriatic acid, or caustic soda. It is fully as non-irritating as argonin, and its retention in the urethra, even for half an hour, produces no disagreeable symptoms whatever.

On the other hand, its effect upon the gonorrheal process, as shown by microscopic examination of the secretion, is immediate and decided. In several cases the gonococci, which were abundant on the first day of treatment, totally disappeared from the secretion within twenty-four hours, never to reappear, and the pus-cells themselves began to look swollen and disintegrated, and the nuclei to lose their characteristic form. This rapid action is due to two causes: first, the large percentage (eighty-three per cent.) of silver; second, the fact that no possible condition of the urethra is able to precipitate it from its solution. The protargol solution (1 part to 200 of water) was used according to the method of Professor Neisser in the cases to be related. A syringe containing  $2\frac{1}{2}$  fluid drams (a smaller quantity of liquid does not smooth out the urethral folds, and thus fails to reach every part of the surface) is injected three times daily and retained thirty minutes. Where this is impossible the injection is retained half an hour morning and evening, or evening only, and finally for ten minutes three or four times during the day.

Fifteen cases of specific urethritis have been treated with protargol in this polyclinic during the past four weeks, in all of which gonococci were microscopically ascertained to be present, and their subsequent appearance in the secretion noted. In 6 cases the gonococci disappeared from the urethral discharge within 24 hours; in 5 cases they vanished within 2 days, in 2 cases within 3 days, and in the remaining 2 cases within 4 days.

In one case in which the gonococci disappeared within one day a urethritis posterior developed six days later, and the prostatic secretion, obtained by expression, was found to contain gonococci. This case had been treated seven weeks, according to the Janet method. During this period the gonococci had abundant opportunity to migrate to the posterior urethra and prostate gland. In another case in which they disappeared within two days, they were again found in the discharge eighteen days later in consequence of the introduction of a sound. In this case the gonorrhea had existed a long time (several months) before treatment was begun, and a small colony of gonococci had without doubt established itself in the prostate; hence, the irritation of the sound caused migration into the urethra again.

These cases were treated by massage of the prostate gland and expression of its suppurating secretion, followed by irrigation of the urethra and bladder by a solution of nitrate of silver (1-5000 up to 1-1000).

In two other cases, one of ten-months', the other of two-weeks' standing when they came for treatment, a secondary inflammation developed later, characterized by the presence of diplococci and streptococci, but no gonococci. These cases have been treated by the injection of corrosive sublimate (1 to 15,000) which acts as a stimulant to any remaining gonococci, but the latter have not

reappeared in either case. The remaining cases have run a smooth course. One patient returned eight days after his first treatment, after drinking beer, for examination. He had no secretion whatever, and both the first and second portions of his urine were clear (Thompson's test). Another came sixteen days after the first treatment to announce that in spite of liberal use of beer and alcoholic liquors, as well as indulgence in sexual intercourse, the discharge had completely vanished. In another case there was no discharge whatever after four-days' treatment. Several others of those first treated have not recently appeared, and it is to be supposed that they no longer have any symptoms.

The catarrhal (aseptic) discharge which often persists some time after the disappearance of the gonococci is treated by injections of zinc sulphate (1 part to about 150 of water).

If subsequent results prove as favorable as those hitherto noted no argument is necessary to show the superiority of this over any previous treatment.

In closing, attention should be called to the need of more careful treatment of acute gonorrhea by the general practitioner. As a rule, the case is either left to itself during the first two weeks or longer, with the possible exception of internal treatment, or any one of a long series of astringent remedies is injected, the only possible effect of which is to extend the inflammation to adjacent parts. Only in case the profession at large adopts and carries out the principles of Professor Neisser, both as to diagnosis and treatment, can it be hoped that the ravages caused by this disease will be less frequently observed by specialists than is the case at present. What one observes in the after course of so-called healed cases of gonorrhea passes belief. A few only need be mentioned here, for example: chronic anterior and posterior gonorrhea, prostatitis, strictures, chronic cystitis, and, worst of all, the infection of the wife with its dread sequence—bartholinitis, metritis, salpingitis, ovaritis, ovarian cysts and tumors, often ovariectomy, and not infrequently death, not to dwell upon the mental and moral suffering of an unhappy marriage. Respectfully,

E. WOOD RUGGLES, M.D.

BERLIN, February 16, 1898.

#### OUR PHILADELPHIA LETTER.

[From our Special Correspondent.]

THE INCREASE IN THE PAUPER INSANE—INFLUENZA MILDLY EPIDEMIC—EXPERT EVIDENCE FROM THE STANDPOINT OF A WITNESS—CHESTER COUNTY HOSPITAL FOR THE INSANE—A SYMPOSIUM ON ANEURYSM—THE SCHOTT TREATMENT OF CARDIAC DISEASES.

PHILADELPHIA, March 19, 1898.

STARTLING as the statement may appear, it is, nevertheless, a fact that during the past ten years there has been an increase of eighty-five per cent. in the number of cases of mental diseases treated at the Insane Department of the Philadelphia Hospital, the population of this branch of the hospital having increased from 394 inmates in 1888, to 1323 inmates at the present time. On the

other hand, the number of paupers cared for by this institution during this period has materially decreased, not only in point of actual numbers, but in direct proportion to the population of the city. As your correspondent has had occasion to note before, the accommodations of Blockley for this additional number of patients has not kept pace with the increased demand, but the long-contemplated additions to the insane quarters of this hospital are now almost finished, and in the near future the inmates who at the present moment must be content to occupy cots in the passageway and in the aisles of the hospital, will be moved to suitable dormitories. About 300 patients will be benefited by the opening of the new buildings, and the congestion will also be lessened to some extent by the consolidation of the outlying poor-districts of Germantown, Frankford, and Roxborough, each provided with its separate insane hospital.

Influenza, which has been more or less in abeyance for two or three years past, has, according to the experiences of a large majority of general practitioners, again become of widespread prevalence in this city. The large clinics and hospitals do not, however, show a material increase of influenza cases over the number usually met with at this season of the year, but this is due, most probably, to the mild nature of the epidemic, if it may be dignified as such, and to the fact that the sufferers are among that class of people who do not patronize dispensaries—if there be such a class! Even if the present malady is not as severe as the disease which played pandemic havoc among all sorts and conditions of men nine years ago, it possesses sufficiently active characteristics to cause no little discomfort among a large portion of the citizens, and gives rise to very evident objective signs of its presence wherever people are congregated, whether it be on the street, in the theater, or in a place of public worship.

Among the causes of the evils attending the employment of expert evidence of a medical nature are, according to Dr. F. X. Dercum, himself an alienist and experienced expert witness, the manner of calling the expert, the bias of the expert himself, and the mistaken idea on his part as to the nature of his functions, and the manner in which the expert, because of his lack of knowledge of evidence, presents his testimony. The absurd and unfortunate propounding of hypothetical questions, and the lack of recognition of the fact that very properly legal truths and scientific truths do not always correspond, are other minor causes of confusion. These views were among those expressed by Dr. Dercum in a paper on "Expert Evidence from the Standpoint of a Witness," read before the New York Society of Medical Jurisprudence on March 14th. Dr. Dercum went on to say that it should be the imperative duty of the court to determine for itself the qualifications of the expert and to communicate to the jury in the trial in question the opinion thus gained, and that, further, the court should be empowered, in all instances in which the precaution is deemed necessary, to call independently an expert to advise the court as to the scientific facts presented by the expert witnesses engaged by the various lawyers. The court should absolutely rule out all hypothetical questions, which, as a whole, or in

part, are misleading, and are often intentionally so construed that it is impossible to base a scientific judgment upon them; hypothetic questions are always needless, and they never, at best, accurately represent, nor are they the equivalents of, the case under trial. The duty of the expert on cross-examination is to answer questions freely, regardless of the benefit or injury to the side by which he is engaged, to confine his answers as far as possible to the simple "yes" or "no," and to exhibit at all times a coolness and an entire self-possession which will prevent the expert lapsing into an address of explanation to the jury of the facts in the case.

The new Chester County Asylum for the Insane, plans for the erection of which have just been adopted by the county authorities, will be situated on the well-known County Home Farm, a few miles from this city. The new building will be of a colonial style of architecture, three stories in height, and in addition to the facilities which it will possess for the modern methods of treating the insane, it will contain apartments for the physicians and for the nurses of the institution, as well as an amusement-hall, with a stage, provided for the entertainment of the inmates. The new hospital will be erected at an expense of \$85,000, and by its operation the Poor Directors of Chester County estimate that they will save at least \$10,000 annually in the care of the county's insane.

The last meeting of the Section on General Medicine of the College of Physicians of Philadelphia, held March 14th, was conspicuous because of the fact that it partook of the nature of a symposium on aneurysm. In addition to a number of papers read on other subjects, no less than twenty-three cases of aneurysm were reported by several of the Fellows of the College. Dr. F. A. Packard presented two cases of aneurysm of the aorta, and reported two cases of pulsating tumor, most probably aneurysmal in character, one of the abdominal aorta, and the other of the carotid artery; he also showed a specimen of aneurysm involving the entire arch of the aorta and the superior portion of the descending part of the thoracic aorta. Dr. S. Mc C. Hamill showed a case of aneurysm of the descending portion of the arch of the aorta, of eleven-years' duration, in a woman of middle age, who had passed through a number of severe illnesses from other causes during this period. The physical signs of bruit, thrill, pulsation, and thoracic prominence, which were marked when she first came under observation, are at the present time either entirely absent or greatly modified in intensity. This patient received the usual internal medication. Dr. A. O. J. Kelly exhibited nine specimens of aneurysmal tumors of the abdominal and of the thoracic aorta, of the arch of the aorta, and of the subclavian artery. Almost every variety of aneurysm was comprised in this collection. Dr. Judson Daland showed four specimens of aneurysm of the aorta, one of which had dissected downward and ruptured into the pericardial sac, and two of which had perforated into the bronchi. Dr. D. D. Stewart spoke of three cases of aneurysm in which he had introduced into the aneurysmal sac a gold wire for the purpose of producing thrombus formation by electrolysis. A patient with aneurysm, recently operated upon

by Dr. H. A. Hare, and whose case he will report in full at a later date, was said to be at the present time, a week after the introduction of the wire and the electrolysis of the contents of the sac, in an improved condition, both as to objective and subjective symptoms.

The Schott method of treatment of cardiac diseases by baths and resistance-movements was explained with great detail in a lecture at Professor Hare's medical clinic at the Jefferson Medical College, March 14th, by Dr. H. N. Heineman of Nauheim, Germany. Dr. Heineman divided the cases for the Schott treatment into three classes: those receiving the baths alone, those receiving the exercise alone, and those receiving both the baths and exercise. The waters of the Nauheim springs are of value chiefly because of the saline, alkaline, and chalybeate constituents which are found in them, to which is to be added a large percentage of carbonic acid gas. The duration of a bath should not be longer than ten minutes, and a safe rule governing its use is that it should never be continued so as to cause any discomfort to the patient. If, for any reason, such, for instance, as marked intermission of the pulse, the resistance-movements are contraindicated, walking is the form of exercise to be employed; these walks should be taken over a level stretch of ground, or over a slightly inclined plane constructed for the purpose, but should not consist of mountain-climbing, as some recommend, a form of exercise far too severe, in Dr. Heineman's opinion, for the average case of organic cardiac lesion. The treatment outlined above was greatly augmented, in suitable cases, by the practice of pulmonary gymnastics. In order to produce a lengthening of the diastole of the heart, the speaker described a sort of cardiac massage, consisting in making forcible and gradually more and more prolonged pressure over the precordium during systole, and suddenly relaxing the pressure during diastole, thus educating, as it were, the heart to prolong the ventricular contraction. The effect of the Schott treatment, as practised at Nauheim, was attributed to various reflex actions, and the *régime* was highly recommended as a rational method of therapeutics, particularly in cardiac lesions with signs of lost compensation.

The typhoid epidemic seems to have at last quite run its course, and the diminution in the weekly number of cases of this disease reported during the past three or four weeks confirms the hope that finally the infection has dwindled to what we, here in Philadelphia, are pleased to consider a normal proportion of cases. For the week ending March 19th, the report of the Bureau of Health shows 57 new cases of enteric fever, with 12 deaths from this cause, a decidedly comforting contrast with the reports of a month to six weeks ago, when double to quadruple this number were returned each week to the health authorities. During the week there were also reported 81 new cases of diphtheria, with 24 deaths; and 53 new cases of scarlet fever, with 4 deaths. Diseases of the lungs, including tuberculosis, pneumonia, and congestion were responsible for 151 deaths. No deaths from influenza were recorded, although, as noted before, the disease widely prevails at present.

## OUR BERLIN LETTER.

[From our Special Correspondent.]

MULTIPLE SCLEROSIS AND A HITHERTO UNDESCRIBED MICROSPORIDION PATHOGENIC FOR MAN—PROFESSOR BAGINSKY ON THE DISEASES OF SCHOOL-CHILDREN AND ON SERUM IMMUNIZATION FOR DIPHTHERIA—FORMALDEHYD FOR DOMESTIC DISINFECTION—FURTHER REGULATION OF THE SALE OF PATENT MEDICINES IN GERMANY.

BERLIN, March 17, 1898.

AT the conclusion of Dr. Jürgen's paper at the Berliner Medicinische Gesellschaft (Medical Society) meeting on Wednesday evening last, there were some hearty cries of bravo, and then a murmur of interested remarks on the contents of the paper. Such a demonstration was unusual, and meant that something which was considered distinctly new had been reported. It was a series of sclerotic patches in heart and brain, in which there was found a parasite hitherto unknown to occur in man.

The case was that of a child who died shortly after admission to the hospital, but whose history contained the account of a number of epileptiform attacks. The sclerosed areas involved only the brain, but affected both white and gray matter, seemingly without distinction. They did not have the usual grayish-yellow color of the ordinary lesions of multiple sclerosis, or the translucent appearance so characteristic of that disease. They were normal in color, rather paler than usual perhaps, and were distinctly more resistant to the touch than the neighboring tissues. Microscopic examination showed that despite their hardness the sclerosed areas did not contain much connective tissue. There was a zone of round-celled inflammatory exudation surrounding them, but their increased consistency seemed to be due to the presence of a large number of the parasites.

If the condition thus described has a relation to ordinary multiple sclerosis it is as an acute preliminary stage of that disease as it is known to us—when the acute inflammatory reaction has given way to the chronic sclerosis consequent upon the death of the parasite and the overgrowth of connective tissue in the resulting scar.

The parasite would seem to be closely related to, if not a member of, the family of the Glugea, a microsporidion described by Professor Pfeiffer of Weimer as occurring in Cyclops, a species of Diatom, and in Daphnia. Inoculation experiments in animals were successful in this case, and the lesions produced were similar to the original lesions in the child. One of the animals not yet dead has had certain larval epileptiform attacks, followed by paralytic symptoms, seemingly indicating that metastases to the central nervous system have occurred.

The parasite itself is as ordinarily seen an oval-shaped cell with a nucleus. It takes the usual stains somewhat as do the nuclei of cells, but may be easily distinguished from them by its larger size, its more regular outline, and its greater affinity for the stains, which give it a deeper color. In the heart it occupies the interior of muscle fibers, whose substance usually has more or less disappeared, as if eaten away. In the brain they occur in the midst of degenerated nerve-cells and fibers.

Professor Baginsky concluded a course of lectures on

the diseases of school-children last week, in which some thoroughly conservative opinions were expressed. It is consoling to hear from so distinguished an authority on children's diseases, that he does not think attendance at school responsible for so many of the ills of childhood as it has of late become the fashion to claim. For him there are three dangers to which special attention should be given, *vis.*, scoliosis, myopia, and overwork in delicate ambitious children, and in girls about the time of puberty. For these teachers must be ever on the watch.

As to the serotherapy of diphtheria (he was talking mainly to school-teachers and non-medical listeners) he could not say enough in praise. He begged them never to be misled by the carping articles which sometimes appear in the secular press (here as well as in America!) in opposition to the new method of treatment. It was undoubtedly one of the greatest, probably the greatest therapeutic discovery ever made.

As to the occurrence of diphtheria in schools, he believed that the appearance of a case ought to be the signal for the immunization with antitoxic serum of all the children in attendance at the school, certainly all of the children who occupy the same classroom as the sick child. He thought further, that the teachers should be ready to consider such a procedure as the proper one, and impress it as such upon the minds of parents. An unfortunate accident, not due to the serum itself, but to a mishap during the injection, had been followed by the death of the child in one of the first cases in which immunization was tried in Berlin (the Langerhaus case). He looked to the teachers to dispel the groundless prejudice occasioned by this. He, himself, would willingly take all responsibility in the matter of serum immunization.

When a case of diphtheria occurred in the surgical wards of the Kaiser and Kaiserin Friedrich Spital, of which Professor Baginsky is the Director, he immediately had all the other children immunized. In private families, when a case of diphtheria occurs, he does not consider immunization so necessary. Prompt segregation often prevents the disease from spreading to other members of the household, and, as the Doctor in such cases is in daily attendance, the serum-treatment may be begun as soon as the first suspicious symptom is noticed in another child. Antitoxin, when given thus early in the disease, he considers an unfailing remedy. In patients injected during the first forty-eight hours of the disease there is absolutely no mortality.

As Professor Heubner has for some time made it a practice to immunize all the children in his wards at the Charité every three weeks, it may be seen what a prominent place immunization has taken here during this last year. For awhile Professor Heubner had to give up his immunizing injections, because the hospital directorate thought it savored too much of experimental investigation on the children, and might arouse popular indignation. They were resumed after an interval of only two months, however, as it had become clear that they were wonderfully efficient in preventing the development of diphtheria in the wards of the hospital. Absolutely no inconveniences have resulted from the practice.

The results of some very interesting work on the disinfection of rooms with formaldehyd gas have just been published by Dr. Fairbanks of Boston, from the laboratory of Professor Grawitz in the Charlottenburg Hospital here. The conclusions are confirmatory of other work in this line, as regards the thorough disinfecting power of the vapor of formaldehyd. Practically all pathogenic micro-organisms, with the exception of anthrax spores, are killed by it, even when they are enclosed in several layers of cloth, provided the covering is not so thick as to be impervious to the gas. Especially interesting are the personal experiments and those on animals, showing that the gas is almost entirely non-destructive, even when present in quantities sufficient to accomplish disinfection, ordinary upholstery or clothing material not being affected by it. The finest silk in the most delicate shades remains absolutely uninjured, and leather, after exposure for hours to the fumes of the gas, remains as smooth, polished, and flexible, as before the experiment.

Here in Germany the formalin and formaldehyd disinfectant methods are rapidly replacing all the other methods which were previously in vogue, which besides their distinct limitations, had a number of serious disadvantages.

It is forbidden to sell "secret remedies" in Germany, and the Ministry of Commerce and Industry has just announced for the guidance of the courts what is meant by a secret remedy. This will remove the last loophole of the patent-medicine people, for, taking advantage of discordant legal decisions, they had been able to keep certain preparations on the market. All remedies not sold under a prescription from a doctor must have the formula of its contents printed on the label. This formula (and here is where the new instructions define the law) must be written not in Latin, but, when possible, in the vernacular. It must be intelligible not only for a doctor or pharmacist, but for any one who wishes to buy, and it must be sufficient to enable a buyer to decide whether the ingredients contained therein are such as may be reasonably expected to give relief, and whether he is paying a not unreasonable price for the amounts of the different drugs which are being bought.

As the merit of the invention (if there is any) is the method of composition of the remedy, this need not be given if there is a real discovery in it, so that the inventor does not lose the benefit of his idea. This decision would strike one as a thoroughly common-sense way of dealing with a difficult question, and one calculated to eradicate the immense swindle patent medicines usually involve. *Quousque tandem?* How long, then, before Americans will be able to point to some such sensible law.

#### TRANSACTIONS OF FOREIGN SOCIETIES.

Berlin.

EPIDEMIC OF ALOPECIA AREATA—THE TREATMENT OF GONORRHEA AMONG PROSTITUTES—TIC GENERAL CURED BY A SUGGESTION—ECHINOCOCCUS CYSTS OF THE KIDNEY—TRAUMATIC MYOCARDITIS—TREATMENT OF OCCIPITAL NEURALGIA.

At a meeting of the Medical Society, January 12th, BLASCHKO described a small epidemic of alopecia

*areata*, occurring among boys who were playmates, eight being effected. This disease has been held by most of the German physicians to be a nervous affection, while the French have for a long time said that it is contagious, and one of their number, Sabouret, claims to have isolated the microbe and to have caused alopecia by the injection of a pure culture thereof, as well as by the injection of its filtrate. It has sometimes been suggested that the lesions of so-called contagious alopecia areata are in reality patches of eczema seborrhoicum; but in these boys the characteristic appearances left no doubt of the nature of the trouble.

BEHREND read a paper upon the *treatment of gonorrhea among prostitutes*. He took the position (1) that in cases of acute gonorrhea in men treated by rest in bed and the application of ice, with frequent injections of ice-water and light astringents, the clinical evidences of disease, together with the gonococci, soon permanently disappear; (2) that in women this is not always the case. The clinical symptoms may disappear while the gonococci persist, or the reverse may be true. It is, therefore, extremely difficult to say when a woman is incapable of communicating the disease.

Acute gonorrhea in the female presents two kinds of lesions: (1) Those which are really gonorrheal in character and are located in the vestibulum vaginae, and possibly in the cervix, and (2) lesions which are simply erosions and which occur upon the outer genitals and in the vagina.

Behrend has little faith in the great number of new remedies proposed, and relies chiefly upon astringents, especially alum and chlorid of zinc. Swabs of cotton saturated with a solution of alum, and frequently changed, are kept upon the vulva and in the vestibule, while twice a day a five-per-cent. solution of zinc chlorid is brought into contact with the cervix through a speculum. No applications of any sort are made to the urethra. In general he expressed the opinion that the clinical appearances of gonorrhea are a far more reliable guide to treatment than the microscopic examination of the pus.

At the session of February 16th, STEIN presented a little girl aged twelve years, who had suffered four years with *tic general*, with the usual symptoms of twitching of the muscles of the face, movement of the extremities, inarticulate sounds, etc., all to a marked degree. Treatment at the hands of various neurologists, including attempts at hypnotism, had failed to give the slightest relief. During five weeks she was treated by application of magnets, the treatments lasting one-half hour each, three times in a week. Stein treated the child by suggestion, her hypnotic state being one more of waking than of sleep. Attention was first directed to the use of the hands and arms, and in five days the little girl was able to write her name. After two-months' treatment control of the muscles was perfectly restored. As the patient had continued well for six months there was good reason to regard the cure as permanent, especially in view of the fact that for four years preceding treatment there had been no remission of the symptoms. The improvement in the girl's general health was most striking.

POSNER showed a patient, aged sixty-two years, who sought treatment because he had noticed that at urination he frequently passed little round, elastic bladders. These were found to be *echinococcus* cysts, and a large tumor was felt in the right hypochondriac region. Upon cystoscopic examination the left ureter appeared normal. The right ureter was greatly enlarged. As the condition of the patient did not improve an incision was made in the right loin, which allowed the escape of a quantity of pus and a great number of *echinococcus* cysts. The patient rapidly recovered, the tumor disappeared in great part, and four months later the right ureter, when examined through the cystoscope, appeared normal. In view of these facts it was thought that the *echinococcus* had developed in the right kidney.

MENDELSON read a paper upon *traumatic myocarditis* before the Union for Internal Medicine, January 17th. A patient, who at the time of accident enjoyed good health, was crushed by a horse against the side of a stall and held in this position a considerable time. He was not compelled to go to bed, but was troubled with weakness, pain in the chest, and shortness of breath. Three weeks later there was well-marked dilatation of the heart, with frequent and arrhythmic pulse. A short time previously the man had been examined for military duty, and his heart was pronounced normal. There can, therefore, be no doubt that the cardiac affection was the result of the severe and prolonged strain to which the patient had been subjected.

JASTROWITZ spoke of the *treatment of occipital neuralgia*. In one patient who had been frequently exposed to severe weather the auricularis magnus, the occipitalis minor, and at times the occipitalis major, were the nerves affected. The affection was confined to the left side. There was a burning pain in the skin of the ear and back of the head, the affected areas being reddened and slightly thickened. At times paroxysms of most intense pain came on, and the ear would become scarlet or violet, and more swollen than usual, and the head would be jerked violently backward. After this had continued nearly five years, and all other remedies had proved of no avail, neurotomy and stretching of the nerves was performed. This resulted in the diminution of the swelling and pain, and relief from the jerkings of the head. Jastrowitz urged his hearers not to postpone operation too long in similar cases.

## SOCIETY PROCEEDINGS.

### NORTHWESTERN MEDICAL AND SURGICAL SOCIETY OF NEW YORK.

*Stated Meeting, Held February 16, 1898.*

THE President, L. DUNCAN BULKLEY, M.D., in the Chair.

#### ECTOPIC GESTATION.

DR. JOHN F. ERDMANN showed a specimen removed from a case of ectopic gestation. The patient was twenty-eight years of age, married ten years, and the mother of two children, the youngest being eight years of age.

During November, ten days after her last menstruation, she had a yellowish vaginal discharge and some abdominal pain, and was admitted to the hospital as a case of pyosalpinx. When first seen by the speaker, February 1st, she had a pulse of 128, a temperature ranging between 99.5° and 101° F., and abdominal tenderness. A tumor in the left side was found, reaching to the lumbar region, and to within three-finger's breath of the umbilicus, and the uterus was fixed in the general pelvic mass. There was no especial history pointing to ectopic gestation. An aspirating-needle was passed into the posterior fornix and blood and serum withdrawn. Abdominal section was then performed. The mass was found to consist of a partially decomposed blood-clot. The fetus, which was three-fourths of an inch long, was found among the blood-clots on a towel just before the wound was closed. The patient made a good recovery.

#### DISCUSSION.

DR. J. RIDDLE GOFFE: The diminutive fetus shown by Dr. Erdmann suggests an explanation of the frequency with which the product of conception fails to be discovered in cases giving many evidences of ectopic gestation. That his microscopic eye should have picked it out from the mass of clots and debris was evidently a happy accident. One week ago to-day I had the good fortune to rescue a woman from the impending dangers attending ruptured ectopic. The stage of advancement of pregnancy at which rupture occurred was much later than in the case presented by Dr. Erdmann. The fetus was completely formed, measured 3½ inches in length, and the sex was clearly revealed. The patient presented a history of more or less irregular menstruation for three months—as the apparent result of interference for the purpose of inducing menstruation. For five days preceding the date of my first visit she had had severe pains in the pelvis which had been controlled by rest in bed and hypodermics of morphin. The patient resided in Yonkers and I was called in consultation with the intimation that there were products of conception in the uterus, and that I was to come prepared to empty the uterus if necessary. Upon obtaining the history and making a thorough examination I diagnosed ectopic gestation with rupture, and advised operation. The uterus was slightly enlarged and was crowded forward against the symphysis pubis, the posterior half of the pelvis being filled with a large irregular and somewhat boggy tumor reaching up to the abdominal wall.

The patient was placed in St. John's Hospital, Yonkers, where I operated, with the assistance of Dr. Sherman of that city, on February 9th. The abdominal incision was employed and the patient placed in Trendelenburg's position. Upon incising the peritoneum its inner surface was found adherent to a large, firm blood-clot, which had to be peeled off. This clot was adherent not only to the abdominal peritoneum, but also to the coils of intestine, the omentum, and to the entire posterior surface of the uterus and broad ligaments. By passing my hand down the posterior wall of the uterus, dissecting off the clot, and then sweeping the hand all around the circum-

ference of the pelvis, the main part of the clot was set free and lifted out *en masse*. It was found to be thoroughly organized, being held in compact form by threads of plasma. The fetus was found at the bottom of the cul-de-sac underneath the clot and—a fact which I neglected to mention in connection with the diagnosis—was quite plainly outlined by the finger in the vagina. The appendages upon the left side were quickly seized, brought up into the wound, and removed after a ligature had been thrown around them. The tube was greatly enlarged, and a rent was found along its free border over two inches in length through which the fetus had evidently escaped. This rent extended through the fimbriated end of the tube. The fimbriated end was patulous and it was apparent that an effort at abortion had been made by Nature through the end of the tube, which, however, resulted in rupture on account of the large size of the fetus.

The vermiform appendix was found firmly embedded in the blood-clot to which it was adherent. On account of its large size and congested condition it was removed. Branches of blood-clot reached from the main mass up into the abdominal cavity among the coils of intestine and omentum, and had to be torn away from their attachments. The pelvis was thoroughly flushed with hot-salt solution, and an iodoform-gauze drain placed in Douglas' pouch and brought out through the lower angle of the wound. Convalescence has been steadily progressive with the exception that the patient's stomach has been very irritable and her bowels constipated. On the fourth day some peculiar mental symptoms developed; the patient was at times irrational and incapable of recognizing her friends. This condition rapidly disappeared after the removal of the gauze and flushing of the pelvic cavity. I am inclined to think that the irritable stomach and the mental symptoms were due to iodoform poisoning. There were no symptoms of infection, the drainage from the abdominal cavity being sweet and free from any sign of sepsis.

DR. CHARLES L. DANA: I would like to ask Dr. Goffe what would have been the probable result in his case had no operation been performed.

DR. GOFFE: There are cases of ectopic gestation on record in which the condition was not recognized at the time of rupture, and in which the fetus has become encysted, or has sloughed into the rectum or vagina. I can understand how Nature might throw out an exudate which would surround the fetus and shut off the pelvic cavity and no bad result follow, provided, of course, that there had not been much hemorrhage.

DR. S. H. DESSAU: I have been struck by the number of cases of ectopic gestation which have been reported of late. At the December meeting of this Society I was called away to see such a case. At the Harlem Medical Association meeting on Monday last a case was reported, and two cases have been reported here to-night—four cases in all within a few months. The case reported at the Harlem Medical Society was very interesting, the fetal sac being attached to an accessory tube.

DR. CHARLES L. DANA then read the paper of the evening, entitled

# MIGRAINOUS VERTIGO.

(See page 385.)

## DISCUSSION.

DR. S. N. LEO: The paper is one of peculiar interest. The general practitioner very frequently meets with cases in which there is vertigo associated with migraine. I recall the case of a boy who had had his ears boxed by a playmate, in which pain and inflammation of the super-orbital foramen supervened. After this subsided he complained of vertigo. Treatment did not relieve him and the condition continued three years, when it spontaneously disappeared.

I recently saw a little boy who suffered from quite severe convulsions resembling those of epilepsy. He complained of vertigo and pain in the ears, first on one side and then on the other. He was given bromid and the symptoms disappeared. Not long ago I attended a woman who suffered from migraine of the worst variety, and also from hysteria. She informed me that a physician had told her she had a "fracture of the cauda equina." There were evidences of fracture of the last dorsal vertebra.

The pathologic facts stated by the author are very interesting. Such changes in the cranial nerves in old people are associated with the most diverse symptoms. What these changes are it is difficult to say, but it is strange that the special senses are not more often impaired. In the first case I referred to there was marked deafness on the right side. The boy also complained of an occasional flash of light before his eyes, and which was invariably followed by a desire to pass water.

DR. E. S. PECK: I fear I can add little to the subject, but I wish to express my pleasure at hearing so graphic and clear an elucidation of it by Dr. Dana. I know of no one who is better able to differentiate these abstruse conditions. Auditory vertigo is undoubtedly due to congestion about the sixth pair of nerves in the labyrinth, either just beyond the ampulla, in the cochlea, or in the semicircular canal. Ménière's disease of the text-books is not what was originally described by that observer as deduced from the well-known experiments of Flourens. Every exhibition of aural vertigo is not Ménière's disease. I think we ought to designate vertigo as aural, laryngeal, nasal, and gastric, although it is sometimes difficult to tell where aural vertigo ends and gastric vertigo begins. I once had a case in the City Hospital which puzzled me. The man was hemiopic on the nasal side of the field of vision; he had migraine; he had laryngitis; he had vertigo, but he did not have Ménière's disease. He was seen by my colleagues of the hospital staff and by neurologists. The symptoms continued a number of years, and the man became blind just before he died. He was supposed to have a gumma in the optic tract. Many of these cases are diagnosed as syphilis. This man was given iodid of potassium in very large doses with no apparent benefit. Attention to nutrition and the administration of nerve tonics are, perhaps, the measures upon which we should rely in cases of this kind.

DR. JOSEPH COLLINS: The paper is of such a unique

character that discussion seems unnecessary. I have kept in mind the fact that one of the objects of the communication was to show the possibility or the reality of the transformation of one degenerative neurosis into another in the same subject. This Dr. Dana has done in such a convincing manner that there is nothing to be added, except to say that one has, or has not, had similar personal experiences. I am prompted to say a word concerning the necessity of closely differentiating migraine from other forms of headache and of distinguishing Ménière's disease from diseases having some clinical resemblance to it.

The case related by Dr. Leo was not, I venture to say, one of migraine, which is always a degenerative disease. It seems to me rather to have been a traumatic or hysterical headache and neither Ménière's disease nor true hemicrania. Ménière's disease is a symptom-complex due to organic disease of the labyrinth, the prominent symptoms being vertigo, and it always entails deafness. It is an accidental disease, not a degenerative disease. Vertigo which alternates with or is replaced by a hemicrania, on the other hand, in most likely, it seems to me, to be of a degenerative nature; a condition depending upon prenatal influences, possibly antedating several generations. In diseases of this latter kind there is nothing like the departure from the normal which attends the ordinary pathologic condition, nothing inflammatory, and nothing of a gross or microscopic nature. I think they are the natural conditions incident to a man or woman who is in a certain stage of biologic evolution. The histories of such cases as Dr. Dana's, and, moreover, the transformation of one symptom-complex into another, will, I think, bear me out in this view.

Migraine is a degenerative neurosis. One symptom does not make the disease—it is the entire symptom-complex. I recently had a case of hemicrania which has impressed upon me the clinical transformation of one disease to another. A young girl of sixteen, who had many somatic stigmata of degeneration, was brought to the clinic suffering from severe attacks of migraine. The attacks were typical, ushered in by nausea, vomiting, a feeling that she wanted to be left alone, and prostration. Then came the lethargic state, from which she finally awoke, feeling that the world was an agreeable place to live in. When I came to examine her, I found that she was like one without a mind. She was incapable of the simplest mental association; memory was very defective, and she was quite lacking in the capacity to indulge in introspection or retrospection; in short, she was in a mental condition very similar to that found in some epileptic patients and in those suffering from other diseases of a degenerative nature. It does not seem to me that we should look for symptomatic transformations in accidental diseases; such transformations are inimical to our conception of them.

In regard to Dr. Peck's case, I do not think I saw the patient. If I had, I do not know that I would have advised large doses of iodid of potassium. The possession of three such symptoms as aural vertigo, hemianopsia, and profound asthenia would not lead me to look for

syphilitic disease unless there were some more pointed indications of that affection.

DR. ROBERT MILBANK: I have only a word to say, and that is in regard to the effect of air or absence of air upon that branch of the eighth nerve which presides over the sense of equilibrium—the nerve of space. I think the action of the air upon it is often seen in patients who complain that when diving in deep water and even when bathing in shallow water the equilibrium is lost when the ears become filled with water, and there is an inability to stand until this runs out. I have a patient who has no ear disease, and yet he has twice fallen and often staggers if he allows water to enter his ears, even when bathing them.

DR. FRUITNIGHT: The paper of Dr. Dana in regard to the transformation of one degenerative neurosis into another is on a very interesting and suggestive subject and offers much food for thought. This transformation doubtless occurs much oftener than is suspected and may explain many obscure phenomena occurring in the course and development of neurotic affections. Personally, I have had no experience with cases of vertigo depending upon the aural neuroses, those which I have had under observation having been due rather to digestive disturbances, which, as we all know, cause the most frequent variety of vertigo.

THE PRESIDENT: All of us must have noticed that there is a free passage of urine in these cases before and after an attack. No mention has been made of this in the paper. I have seen a number of cases of vertigo which we have always looked upon as due to stomach or liver disorder, and in which relief has always followed administration of the proper remedies. I would like to make a line of definite therapeutics in such cases. I would like to recommend the administration of the alkalies half an hour to an hour before meals in cases of migraine, together with *nux vomica* and *cascara*. The alkalies should be given before eating, as their effect is then very different. Dr. Dana has not mentioned the effect of diet in these cases. I would like to know if he has been able to trace any of the attacks to the period of secondary digestion—two, three, or four hours after meals.

DR. DANA, in closing: The attacks in the case mentioned bore no relation either to diet or to meal-time so far I was able to discover. They all bore a relation to nervous exhaustion. Overwork and loss of sleep brought on an attack. There are two kinds of aural vertigo; one is a progressive disorder due to disease of the labyrinth, always advancing and ending finally in deafness. This is Ménière's disease. In the other the vertigo is functional or nearly so, and there may be no progress. This includes all cases not of the Ménière group. It is to these latter cases that I refer. I do not see any such thing as the gastric vertigo of Trousseau. Such is probably an autotoxemia. I have been very much interested in Dr. Collins' remarks about the mental deterioration which occurs in migraine patients, similar to that which is seen in epileptics. I know that this deterioration does occur, especially in individuals with not very strong brains.

**KINGS COUNTY MEDICAL ASSOCIATION.***Stated Meeting, Held February 8, 1898.*

THE President, J. S. BIERWIRTH, M.D., in the Chair.

A paper, entitled

REPORT OF A CASE OF INTESTINAL OBSTRUCTION, was read by C. P. GILDERSLEEVE, M.D. (See page 392.)

**DISCUSSION.**

THE PRESIDENT: I am sure the Association must be very much indebted to Dr. Gildersleeve for reporting this case; in the first place, because of the rarity of the occurrence, and, in the second place, as he very correctly points out, because of the reluctance of opening the abdomen in cases of intestinal obstruction; more especially in this instance on account of the location of the pain to the right of the median line and in the vicinity of the point at which is usually found the greatest tenderness in cases of appendicitis. The difficulty of making a diagnosis in cases of appendicitis is sometimes extremely great. During the past two weeks I have had two cases in which in my opinion a diagnosis of appendicitis would have been impossible, and yet I think that in both cases the appendix was involved, though in neither did the inflammation progress to suppuration, and in neither was operation performed. In both cases there was pelvic inflammation; in one due to abortion caused by drugs, and in the other due to severe uterine and ovarian cramps, the cause of which was not determined. However, in both cases the pain was located in the pelvis and chiefly on the right side; the tenderness was strictly on the right side. In one case I saw the patient at short intervals, expecting hourly to be obliged to decide upon operation, and in the other case there was considerable inflammatory action about the uterus and ovaries—the case of abortion—and the patient was seen by Dr. Baldwin, and he fully agreed that it was impossible to distinguish between the right ovary and the appendix. So that cases of supposed appendicitis, like the one mentioned in the paper and the two just related, are not so very infrequent. We hear of the easy diagnosis to be made in all cases of appendicitis. I must confess that I have seen a good many cases in which the diagnosis was far from easy, especially if there were any complications.

DR. J. D. SULLIVAN: I have a case in mind that I saw last Saturday morning. The patient came into the hospital with no symptoms except intestinal obstruction and vomiting. He had been taken sick the preceding Monday with vomiting and symptoms of appendicitis, so far as could be made out, but he was not sent into the hospital until Friday evening. I saw him Saturday morning; his temperature was about normal, pulse 70, very little pain, and he appeared to be in good condition. My diagnosis was appendicitis, although the grounds for such a diagnosis were very few and obscure; but he was operated upon and the appendix found gangrenous, as was also the ascending colon. There was sufficient vitality in the base of the appendix to permit removal of the gangrenous portion, and then I packed the operating field

because I felt quite sure from the gangrenous condition of the ascending colon that it would give way. The operation was performed about noon on Saturday. Sunday morning the patient seemed remarkably well. I was surprised to find him in such a good condition, but yesterday—Monday—he suddenly died. An autopsy revealed perforation of the intestine and a great many gangrenous spots in the ileum as well as in the ascending colon.

THE PRESIDENT: I would like to relate the history of a very curious, perhaps a unique, case. The specimen should have been taken out and the case reported. The patient was an old gentleman eighty years of age, who presented a history of repeated fecal accumulation, which I washed out a number of times, enormous quantities of fecal matter being removed by means of the high injection. I cautioned him to be very careful in regard to his bowels and keep them open, but my caution was of no avail. I was sent for and found him in collapse. He died within twenty-four hours after my first visit, and at the autopsy a condition was found which was very curious. During life the patient appeared stout, having had quite a large abdomen. He looked like a fat man, as far as his abdomen was concerned, and I had been very much astonished when I washed out his colon and saw his abdomen exposed at that time, to find how very thin the abdominal walls were. There was a curious feeling of the contents of the abdomen, and at the autopsy, on making the incision through the skin, instead of finding the omentum, we saw two columns—as if I took my two arms and laid them on my abdomen in the shape of a U—and we were at first puzzled by the condition; but, passing a bougie into the rectum, it was found that the instrument entered this U-shaped tube, which was about eight inches in diameter. It was determined that the rectum had become dislocated in front of the omentum, and was enormously enlarged. It was certainly four or five times the normal size in every direction—in length as well as in circumference. Notwithstanding the fact that shortly previous to his collapse he had been thoroughly washed out, enormous quantities of feces were removed, and we estimated that the contents of this dislocated and enlarged gut weighed from fifteen to twenty pounds.

REPORT OF FIVE CASES OF PUERPERAL MYELITIS was the title of a paper by Dr. A. C. Brush. (See page 390.)

**DISCUSSION.**

DR. SULLIVAN: I would like to ask if there is any prospect of recovery in any of the cases mentioned in the paper.

DR. BRUSH: The prognosis will be the prognosis of myelitis in general. As a rule, the paralysis is most extensive at first. The disease originates in a hemorrhage or septic inflammation and shock. At first the disturbance is exaggerated by the shock. As the lesion gradually improves the cord recovers some of its lost power. If the lesion is in the lumbodorsal region and the bladder and rectum are not affected, the prognosis is better than when it is lower down. When it is higher there is spastic paraplegia, due to the fact that the influence of the brain

is removed, but under such circumstances the lower centers still act, nutrition is maintained, and the patient can walk with a peculiar shuffling gait. It is impossible without a careful examination to state whether the case is one of true lateral sclerosis or myelitis and hemorrhage into the cord. Of course, if the lesion is low down, absolute paralysis of the bladder and rectum and atrophy of the muscles and death is the only outcome, and, as a rule, bed-sores rapidly develop, the patient lives a few months on a water-bed, and dies with cystitis, bed-sores, and pneumonia. When the lesion is higher up the prognosis is better, and the patient may walk a little with the aid of a cane or sit up in a chair. Under these circumstances patients may live a number of years. Life, although not directly in danger, is probably shortened, as it is very rare to find an old person with any one of these affections.

DR. SULLIVAN: Does Dr. Brush think that all the elements of the cord are involved; that is, the sensory as well as the motor tracts?

DR. BRUSH: In myelitis there is not inflammation of the column so much as of the spinal centers. In these cases the sensory portion of the cord recovers more rapidly than the motor; just as in neuritis, the motor is not involved as soon and recovers more slowly, while in the sensory tracts recovery is more rapid. In all the cases mentioned in the paper except one there was more or less recovery of sensation, while the motor paralysis improved more slowly, or not at all. In one of two, I think, recovery of sensation was fairly complete.

#### NOTES ON THE WIDAL SERUM-REACTION AND ON THE METHOD OF HISS

was the title of a paper by DR. JEROME B. THOMAS, JR. (See page 388.)

THE PRESIDENT: It was especially interesting to listen to the paper for the reason that Dr. Thomas a year ago presented to us what was then a comparatively new method, and he has now given us in concise form the results of a year's experience with the Widal test, in addition to the new method of Dr. Hiss.

DR. J. D. RUSHMORE: There is one statement the Doctor made—and I have heard it before from bacteriologists—in regard to which I would like to inquire, and it is: What are the difficulties in isolation of the typhoid bacillus in fecal matter?

DR. THOMAS: The special difficulty is that other organisms contained in the feces rapidly overgrow the typhoid bacillus, and the object of this particular medium is to keep other organisms from growing, and at the same time not interfere with the growth of the typhoid bacillus. The colon bacillus is an exceedingly hardy organism, and is inclined to overgrow the typhoid bacillus, its colonies spreading over and contaminating colonies of other germs. I should have said, perhaps, that one of the main points in the matter has been to accomplish isolation rapidly, so as to make the test of practical value.

DR. SULLIVAN: I would like to ask if this peculiar element which paralyzes the typhoid bacillus is a toxin or antitoxin?

DR. THOMAS: It is supposed to be a product of infection rather than an antitoxic product. This point has been carefully worked out by some of the Germans who have studied the subject. I think it pretty well settled that it is a product of intoxication rather than an antitoxic product. It has been called "paralyzin" and "agglutinin," naming it from its peculiar action on the typhoid bacillus, but the substance in question has never been definitely isolated.

## REVIEWS.

A CLINICAL TEXT-BOOK OF SURGICAL DIAGNOSIS AND TREATMENT. By J. W. MACDONALD, M.D., Professor of the Practice of Surgery and of Clinical Surgery in Hamline University, Minneapolis. Illustrated. Philadelphia: W. B. Saunders, 1898.

THE medical public is well supplied with books on medical diagnosis, but this is the first attempt, so far as the reviewer is aware, to gather into a single work the data essential to surgical diagnosis supplemented by the appropriate treatment of each condition. The wisdom of writing a practical work on surgery at the present time without any reference to surgical pathology or bacteriology, or even to surgical principles,—the wisdom of such a course may be questioned. The author finds himself at a disadvantage, for example, when he discusses puerperal septicemia; for no reference is found to the serum treatment of this condition. That it was not omitted because it is not invariably infallible cannot be the case, for the ancient and discarded methods of the treatment of hemorrhoids, for instance, are all given a place (p. 327). Aside from this objection, which is raised on grounds purely scientific and by no means utilitarian, the author has undoubtedly fulfilled his purposes well. He has covered, as will be seen, an enormous field, and has taken evident infinite pains to be complete. A quite careful perusal of the volume has shown that little in the way of surgical diagnosis is omitted and that the greater part of the treatment recommended is in accord with modern surgical notions.

Chapter I. deals with the general examination of the patient, including age, sex, heredity, and individual peculiarities. Chapter II. takes up the vascular system; Chapter III. the osseous system, its diseases and injuries. Chapters IV. and V. treat of the diseases of the muscles, tendons, and bursæ, and the injuries and diseases of the joints, including a short but excellent treatise on orthopedic surgery. The next chapter includes the surgical ailments of the digestive system, beginning with the lips and ending with the anus, and embracing the surgery of all the abdominal organs. The recent methods of intestinal surgery and the surgery of the gall-bladder are all found mentioned and discussed. The author is in favor of the removal of any appendix which has once been inflamed. His discussion of appendicitis is particularly good.

The genito-urinary system is next considered in its surgical light, and is followed by a very complete chapter on cranial surgery. The spine and nervous system are

next taken up. Under the heading of the respiratory system we find no mention of the subphrenic abscess. The diagnosis and treatment of syphilis and of tumors occupy the two succeeding chapters. Chapter XIV. takes up the diseases and injuries of the neck, Chapter XV. those of the breast. Following the next chapter, on the surgery of the female generative organs, is the concluding chapter on the use of Röntgen-rays in surgical diagnosis.

It will be seen that the work covers quite completely the surgery of the day. Throughout the book particular stress is laid upon diagnosis and differential diagnosis, the usefulness of the latter being enhanced by several tables. The practical nature of the work is further increased by the consideration of appropriate treatment under the discussion of each disease or injury. The few remarks on the preparation and after-treatment of operative cases might be extended with benefit. In the main the views expressed are those sanctioned by highest surgical usage and endorsement, and one can come to no conclusion but that the book is a safe and valuable guide, as it is a novel one, for both practitioner and student. It takes up a method not before presented in the English language and will undoubtedly receive the endorsement it deserves.

We should like to see the next edition contain articles on the ear, eye, and skin, omitted from the present one because the diseases of these organs are usually left to the care of specialists. The same argument holds true in respect of the diseases of the female generative organs; and certainly most communities which possess specialists in the domain of the eye, the ear, and the skin have gynecologists as well. The chapter dealing with gynecology is, we feel in duty bound to add, rather behind the others in point of modern thought, and would benefit by considerable revision and improved proof-reading.

The impression left by the reading of the book is that of a thorough and complete work on surgical diagnosis and treatment, free from verbiage and padding, full of valuable material, and in accord with the surgical teaching of the day.

The publisher's work is well done. The printing and paper are good, and the illustrations, many of them from original photographs, are well executed. Several radiographs enhance the value of the book.

**THE PRACTICE OF SURGERY.** By HENRY R. WHARTON, M.D., and B. FARQUHAR CURTIS, M.D. Philadelphia: J. B. Lippincott Co., 1898.

THIS latest contribution to the numerous text-books on surgery is a synopsis of the subject in a single volume of 1214 pages, with 925 excellent illustrations and a very elaborate index of 25 pages.

The commonplace affections receive full consideration, and there is a brief rendering of the unusual ones, among which, we note the omission of coxa vara, painless whitlow, and trigger-finger.

The first 261 pages are devoted to the principles of surgery, wherein bacteriology and surgical pathology are duly emphasized, and the technic of asepsis and antisepsis is briefly expounded; then follow the chapters on minor surgery and anesthesia. In the latter it is stated that

chloroform may be administered by pouring one-half to one dram on a cloth. This is decidedly wrong. The "drop method" is the only correct one. In regard to cocaine we should have preferred to teach a one-per-cent. solution as adequate for all purposes.

The remainder of the work deals with a regional description of the surgical affections, and passing to a review of these, a few instances, to dissent from, have been singled out.

In presenting the theories of shock, Goltz's classic experiment should have been introduced. For tamponing the posterior nares in epistaxis, Belocq's canula ought never to be employed, but the catheter always. Under tracheotomy the description of Rose's method of dividing the fascia transversely at its attachment to the lower margin of the cricoid cartilage, thus rapidly reaching the trachea, is wanting. Referring to the diagnostic value of the examination of fluids accumulated in the abdomen, so important a disease as tuberculous peritonitis has been overlooked.

After all, these are but errors of omission and, in so extensive a treatise, are pardonable. The epitomized style, the rather too frequent omission of author's names in connection with diseases and methods, and the entire absence of reference to literature, may detract from its usefulness to the general practitioner, yet we heartily commend the perusal of this book to the student, as embodying methods and teachings well tried and tested at the hands of two surgeons engaged in very active practice.

**TRANSACTIONS OF THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.** Fourth Triennial Session held at Washington, D. C., May 4, 5, and 6, 1897. New Haven: Published by the Congress, 1897.

THE complete transactions of the Fourth Congress of American Physicians and Surgeons are here presented in a handsome bound volume. The proceedings of the Congress were duly chronicled in the *MEDICAL NEWS* at the time of the meeting, so a review of the details of the meeting is unnecessary now. The volume is edited by Dr. William H. Carmalt of New Haven, is finely printed on heavy paper, and is profusely illustrated.

**A MANUAL OF LEGAL MEDICINE FOR THE USE OF PRACTITIONERS AND STUDENTS OF MEDICINE AND LAW.** By JUSTIN HEROLD, A.M., M.D., Formerly Coroner's Physician of New York City and County; Late House Physician and Surgeon of St. Vincent's Hospital, New York, etc. Philadelphia: J. B. Lippincott Co., 1898.

THE author of this admirable book draws attention to the fact, so well known to us all, that the teaching of legal medicine in the medical colleges of this country is very defective: "The well-educated physician, even though he be acquainted with all the other branches of medicine, is utterly incapable of solving important questions of medical jurisprudence. He is completely baffled when confronted by such intricate questions as those embracing infanticide, strangulation, drowning, or others," and this for the reason that "none of the conditions of forensic importance are subject to solution by theoretic prin-

ciples, but are comprehensible only when studied alone as facts."

With these truths ever in mind, the author has given us a work which is in every way complete and satisfactory, and it is a pleasure to follow to a conclusion the practical and oftentimes simple hypotheses which he has drawn. The first portion of the book (142 pages) is devoted to toxicology, and embraces the methods of administration and the effects of poisons, the diseases simulating poisoning, and the rules to observe in poison cases. The entire range of poisons, from mineral agents to ptomaines, is exhaustively treated, and the section ends with remarks on embalming from a medico-legal standpoint.

Part II., on forensic medicine, is very complete. Beginning with the powers and duties of coroners, the subjects relating to legal medicine, with the exception of insanity, are treated *in extenso*. Many famous cases bearing upon the respective points are cited, and the author clearly and concisely elucidates the lessons which are to be learned therefrom. Altogether this book is an exceedingly valuable addition to those of like nature already published.

**HOW TO LIVE LONGER AND WHY WE DO NOT LIVE LONGER.** By J. R. HAYES, M.D., Medical Examiner, Bureau of Pensions. Philadelphia: J. B. Lippincott Co., 1897.

THERE is much in this little work of 180 pages to commend itself to thoughtful people, especially to those who desire longevity. It is hard to believe that an ascetic life induces length of life, and it is difficult after reading this work to think that it does not. Although we do not like the religious tone of the book, devoted as it is to purely physical considerations, it is written honestly, we have no doubt, even to the tacit acceptance of Christian Science. There is much that could be combated on scientific grounds, but since the book is intended for lay readers, there is no need of further consideration at our hands.

**LIPPINCOTT'S POCKET MEDICAL DICTIONARY**, Including the Pronunciation and Definition of Twenty Thousand of the Principal Terms Used in Medicine and the Allied Sciences, together with Many Elaborate Tables. Edited by RYLAND W. GREENE, A.B. Philadelphia and London: J. B. Lippincott Company, 1897.

THIS little book aims to supply the requirements of a pocket medical lexicon, handy in size, clear, reliable, and up to modern requirements. An effort has been made in its compilation to eliminate obsolete terms and to insert only those which are necessary in modern medical literature. It has a flexible cover, but on account of its thickness, would probably be found rather cumbersome to carry about.

**LECTURES ON PHYSIOLOGY. FIRST SERIES. ON ANIMAL ELECTRICITY.** By AUGUSTUS D. WALLER, M.D., F.R.S. London, New York, and Bombay: Longmans, Green & Co., 1897.

THIS book contains part of the material of a course of lectures on animal electricity delivered by the author before the Royal Institution of Great Britain, in which he

is the Fullerian Professor of Physiology. The matter is presented so clearly and precisely that any one who reads this little book cannot help retaining the facts of animal electricity. The lectures are a model of conciseness, yet are complete in every respect. Teachers of physiology are reminded that there is much in this book which will be of value to them in class demonstrations.

**HANDBOOK OF MATERIA MEDICA, PHARMACY, AND THERAPEUTICS.** By SAMUEL O. L. POTTER, A.M., M.D. Sixth edition. Philadelphia: P. Blakiston, Son & Co., 1897.

ANY book which has passed to its sixth edition within a little more than ten years has reasonably answered all doubt as to its usefulness, and there is usually little left to be said by the reviewer. To its former acquaintances it may be of interest to remark that the sixth edition presents an increase of nearly one hundred pages, with a consideration of forty-six new subjects. The work appears to be quite accurate in its vast details, and highly convenient as a volume for quick and easy reference. If any adverse criticism is merited, one might be pardoned for suggesting that the scientific correlation of subjects has been too often sacrificed to convenience in classification, and the broad principles of therapeutics are less prominently taught than is desirable in a text-book. The mechanical preparation and general appearance of the book compare favorably with the previous editions.

## THERAPEUTIC HINTS.

*For Syphilides of the Scalp* the following ointment is highly recommended, especially for the impetiginous variety:

℞ Hydrarg. ox. rubr.	} aa . . .	3 ss
Zinci ox.		
Resorcini . . . . .		gr. xv
Vasellini . . . . .		℥ i.

M. Sig. For external use.

*For Painful Parotiditis Complicating Influenza.*—The following ointment should be rubbed into the skin over the affected gland three times daily, and then a cotton-wool dressing should be applied:

℞ Ichthyol	} aa . . .	gr. xlv
Plumbi iodid.		
Ammonii chloridi . . . . .		3 ss
Adipis . . . . .		℥ i.

M. Sig. For external use.

*For Bronchopneumonia in Infants.*—

℞ Lactophenini . . . . .	gr. xv
Ac. benzoici . . . . .	gr. v.

M. Ft. pulv. No. VI. Sig. One powder every four hours.

*For Epilepsy.*—

℞ Zinci oxidi	} aa . . .	gr. xviii
Pulv. rad. valerianæ		
Pulv. rad. belladonnæ . . . . .		gr. ii
Saponis . . . . .		q. s.

M. Ft. pil. No. XII. Sig. Four pills daily.—*Voisin.*